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InfoWarrior
Version 0.6

Team 4

Individual Document

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Abstract

This document contains analysis and design of a computer based collecting and presenting information system with the working title "InfoWarrior".

Contents

Chapter 1

Introduction

Information is a very important part of our life. Human beings always wanted to and want to be good informed on what is happening in their neighbourhood as well as in their cities, countries and continets. Fresh information has an influence on our decisions, and that is why people like to be fast and good informed. The most common way the people get informed today is by watching TV, reading newspapers, listening to the radio, etc. However all this information is to be collected and presented to the end-users. Computer-based system are very suitable for collecting and presenting of information.

1.1 Planning

1.2 Basic Organization

We are a group of 5 members. Each member has a certain task to perform. The tasks are determined through the role distribution. Each week there will be a session between the group members and a session between Mr Schweiger and the project leader. The project leader rotates from session to the session.The following dates for sessions are already set:

- Huskic Zenina on October 31, 2001
- ...

Each member of the group should prepare her/his own solution to the problem. These solutions will be worked through by the group. Group document contains parts of the single solutions. Project leader should present the group document to Mr Schweiger. The project leader makes a protocoll about this session. The protocolls are to be found as appendix to this paper.

1.3 Goal

Goal is to perform analysis of the system as good as possible in order to prepare a basis for future implementation. Further on, the members of the group should get a better understanding of the iteration process. The iteration process should result in an end document (project paper). This document should contain clear project definitions and requirements as well as implementation constraints.

1.4 Problem Statement

The following text contains the theme and open questions to the theme. The questions are numbered and given as a footnote.
Eine Nachrichtenagentur ("e-News") stellt an uns die Anforderung den Informationssammlungsprozess und Informationspräsentationsprozess aufzubereiten mithilfe von EDV-technische Unterstützung (Projektname: "InfoWarrior"). Diese Prozesse sollten bewusst einfach [1] gehalten werden.
Als potenzielle Nutzer des Systems sollten natürlich Erfasser [2] [3] der Information [4] eingeplant werden plus Abrufer [5] von solchen Informationen. Die Abrufer von Informationen können einerseits Fremdsysteme [6] sein, andererseits Personen [7].
Daraus resultieren zwei mögliche Szenarien:

- Gesammelte Information wird von CodeWarrior [8] an andere Systeme weitergereicht (XML sollte dabei benutzt werden) [9]
- Gesammelte Information wird von CodeWarrior an Einzelpersonen weitergegeben [10]. Dies setzt natürlich eine entsprechende Aufbereitung [11] Information dar.

Als besondere Anforderung wird die einfache Wartbarkeit von CodeWarrior angemerkt, d.h. u.a. eine lokale Installation von Erfassungskomponenten und Darstellungskomponenten sollte nicht erfolgen [12]. Desweiteren sollte e-News die Möglichkeit haben, die Aufbereitung der Information für Einzelpersonen zu beeinflussen, ebenfalls ohne grossen Aufwand. Für die erste Phase von CodeWarrior wird eine Reduktion auf das Wesentliche [13] angestrebt aber mit den Optionen in weiteren Phasen Erweiterungen, in Kooperation mit unserer Gruppe, am System anzubringen.
Geplante Projektdauer ist bis Ende Jannuar 2002.

1.5 CRC Session (First considerations)

In the following we give an overview of classes and few scenarios.
There probably may be many ways to select classes, we tried this method: Starting with the problem statement, we looked for nouns first as we considered them to be potential objects. As a next step, we thought about different scenarios to evaluate the suitability of our very first ideas and to enlarge the correspondence between concept and reality.

[1] What does "einfach = simple" mean, that is what is for customer simple enough?
[2] Who are Erfasser, "e-News" agency employees or we?
[3] How many data collectors are there?
[4] What is going to be prapared, that is, what is information content (text, pictures, multimedia)?
[5] Who are Abrufer, that is who can access the infomation, that is, are there different access levels?
[6] What kind of foreign systems?
[7] Which persons (e-News agency employees, we, or others)?
[8] What is exactly the name of the project, Infowarrior or CodeWarrior?
[9] Are there already other systems existing or not? If yes, does DTD for XML exist or not? That is, how is information delivered?
[10] How is information delivered to the end-users(per e-mail?)?
[11] How will information be prepared?
[12] Does it mean that this a web-based application , or what?
[13] What is for customer "wesentlich = important"?

Finally, we selected several questions that occured during the process. We hope many of them will be answered during this session in addition to the questions that are set as footnote(questons to the problem statement).

1.5.1 Identifying classes

- User
  - Data collector
  - Other users
    - Third parties
    - Foreign systems
- InfoWarrior-application
- E-News employees
- Information material
- E-News agency
- Access manager

1.5.2 Some scenarios

- Can data collector XY manipulate all currently available data, and what happens if XY tries to access or change data out of scope of his access rights?
  Suggestion: There should be some kind of access manager that restricts access only to the field relative for collector XY. If XY tries to access date without permission there will be an error message shown.
- What happens if fresh news from some area is/are available?
  Suggestion: There are for example two possibilities:
  - User sets her/his preferences upon registration and gets news delivered per e-Mail automatically if there is something new in the area she/he is registered for.
  - User sets her/his preferences upon registration and when she/he visits homepage of e-news agency, upon login page is created with links to news that user is interested in.
  - others
- How does system respond if data collector XY enters data that already exist in database?
- What happens if user requieres news for which no fresh occurrence is available
  Sugestion:
  - System reports that no fresh news is available
  - System shows the most recent news, that user already knows about

Chapter 2

CRC Session

2.1 Problem Statement (Version two)

After the first session with the customer, the problem statement has been partly cleared.

- The news agency requires an information collecting and presenting software system (web-based application) that should be simple, which means data collecting, data presentation and meaningfull data input have to be simple organized.
- Data collectors are the reporters [1] employed at the e-News agency. Each reporter prepares at least one, and at most 5 news per day. The news are controlled by director. There are about 5 directors, and each director is in charge for approximately 50 reporters.
- Information should be accessed in two ways:
  - Pull: login
  - Push: via SMS, via e-Mail, ...

  There should be different access levels based on price model, that is:
  - free information available to the whole world
  - for very important, time dependent infromation one must pay in order to access it
- Information content should be all supported types (text, pictures, multimedia).
- Information will be distributed to other foreign systems and single persons. A foreign system is for example, the CNN page.
- There has to be a possibility for preparing information for each person (the preferences should be entered by the user upon registration).
- New information has to be faster available than the old one. Under "old information" is meant the information older than a month.
- In the first phase of this project the collecting and distributing process of information has to be clarified.

[1] Data collector = reporter

2.2 Open Questions (1)

1. Which operating system is going to be used?
2. Who is responsible for hadware (who is going to buy hardware, who is going to maintain hardware, ...) ?
3. Which information is needed for registration?
4. Should a user be able to change her/his preferences at some point later on?

2.3 CRC Card Session

2.3.1 General

- CRC Cards
  CRC Cards are invented by Ward Cunningham and Kent Beck.They were, and are, concered about how to teach people that same deep knowledge of how to use Smalltalk that they had gained. From this question of how to teach objects came the simple technique of CRC (Class-Responsibility-Collaborataion) cards.
  Individual CRC Cards are used to represent objects. The class name is written at the top of the card, responsibilities are listed down the left side, collaborating classes are listed to the right of each responsibility.
  In CRC Session the developers will crowd around a table, each person picking up a card as they describe how the class participates in some use case.
- The Session
  The ideal group for a CRC card session is five or six people. It should be composed of developers, domain experts, and an object-oriented technology facilitator.
  Steps in a CRC card session:
  1. Creating class
     - Find all of the nouns and verbs in the problem statement
       The nouns are a good key to what classes are in the system, and the verbs show what their responsibilities are going to be.
     - Pass out cards and assign the class to the member of the group.
       Each person should be responsible for at least one class. Each person records the name of their class on a card. One class per card.
  2. Responsibilities
     - Add the responsibilities that are obvious from the problem statement or the name of the class. You don't need to find them at all or any. The scenarios will make them more obvious.
  3. Superclasses and Subclasses
     - Superclasses and subclasses can be defined at any time they become obvious.
  4. Attributes

- Attributes of class are an implementation detail and are generally not defined at all until the design phase, but they can be defined at any time the group thinks it is appropriate.

5. Scenario execution
   - Scenarios are walk-throughs of the functions of the system in detail.
   - Start with scenarios that are part of the system's normal operation first, and then exceptional scenarios, like error recover, later.
   - Decide which class is responsible for this function. The owner of the class picks up his card. When a card is in the air it is an object and can do things.

2.4 InfoWarrior CRC Session

1. Creating class
   - Nouns
     - Application
     - User Interface
     - News
     - Category
     - Reporters
     - Editors
     - Access Manager
     - Customers
     - External Systems
     - Storage
     - Archive
   - Verbs
     - collect
     - distribute
     - input
     - send
     - login
     - control access
2. Some scenarios
   - Can data collector XY manipulate all currently available data, and what happens if XY tries to access or change data out of scope of his access rights?
     Suggestion: There should be some kind of access manager that restricts access only to the field relative for collector XY. If XY tries to access date without permission there will be an error message shown.

- What happens if fresh news from some area is/are available?
  Suggestion: There are for example two possibilities:
  - User sets her/his preferences upon registration and gets news delivered per e-Mail automatically if there is something new in the area she/he is registered for.
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  - others
- How does system respond if data collector XY enters data that already exist in database?
- What happens if user requieres news for which no fresh occurrence is available
  Sugestion:
  - System reports that no fresh news is available
  - System shows the most recent news, that user already knows about
- Enter News
- Delete News
- Edit existing News entries
- News request from automated system
- News browsing
- Create User
- Login
- Modify User rights/preferences
- News entry not found
- Access violation

2.5 Essential Use Case Modeling

2.5.1 General

- Use Cases
  - "a behaviorally related sequence of transactions in a dialogue with the system",(Ivar Jacobson)
  - For example: Use Cases for a word processor might include building an index or inserting a picture.
- Use Case Diagrams
  - provide a way of describing the extarnal view of the system and its interactions with the outside world. In this representation the outside world is represented as actors.

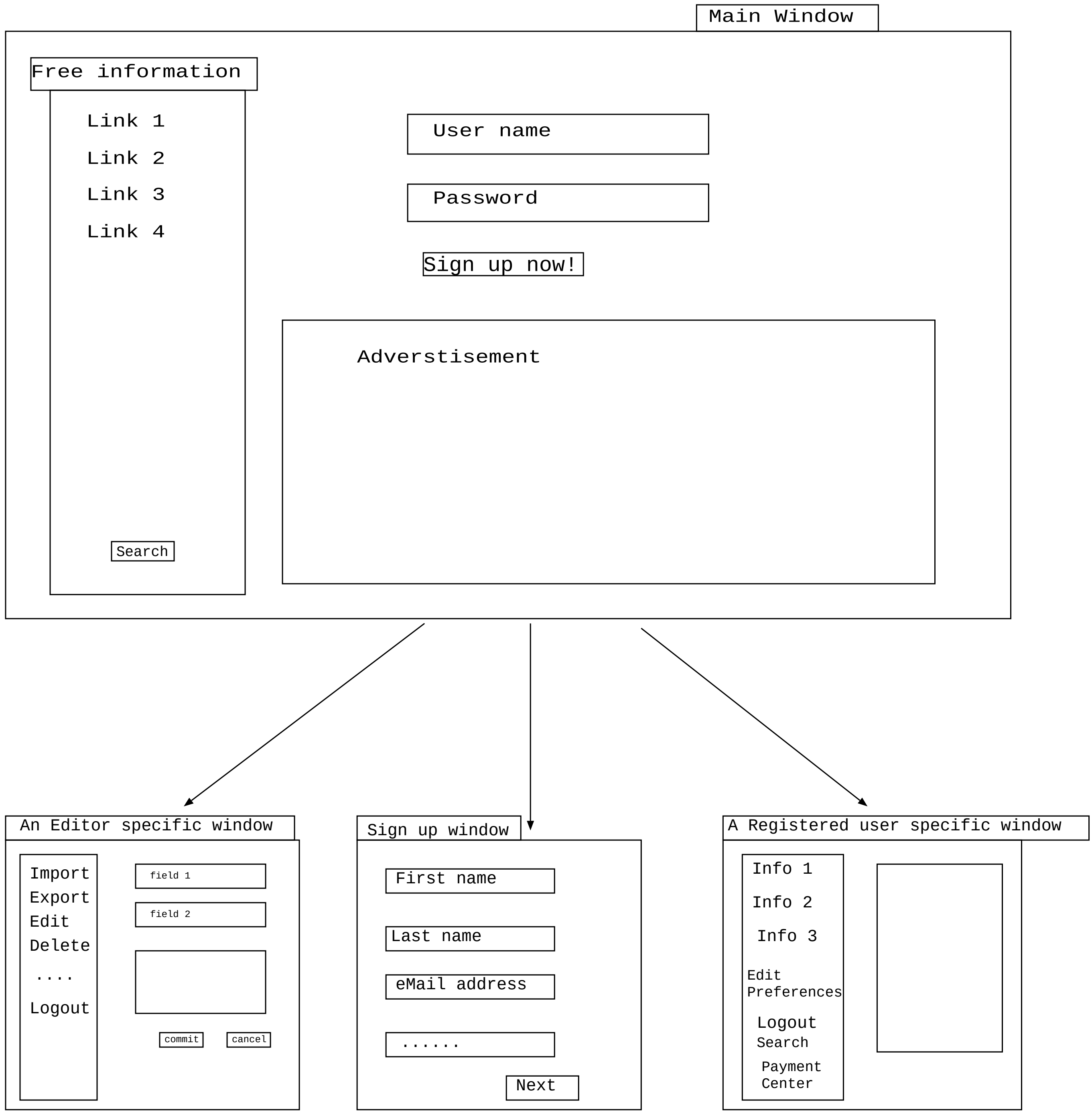
- Actors
  - Actors are roles played by various people, or other computer systems. One person may play many roles, and a role may have many people playing it. Use Cases are then typical interactions that the actor has with the system.
- Relationships
  - are represented through the lines between actors and Use Cases, and between Use Cases and Use Cases.

2.5.2 Use Cases in InfoWarrior

- Actors
  - User
  - Reporter
  - Editor
  - InfoWarrior
  - News
  - ...
- Relationships
  - Subscribe for News
  - Login
  - Change Preferences
  - Enter Information
  - Modify Information
  - Delete Information
  - Archieve Information
  - Send Information
  - ...

2.6 Essential User Interface Prototyping (First considerations)

System contains one main window with links/ buttons to the other pages/windows. It is the same both for normal users and for editors. Upon login new User Interface is shown with features available depending on access level.


Main Window
Free information
Link 1
Link 2
Link 3
Link 4
Search
User name
Password
Sign up now!
Adverstisement
An Editor specific window
Import
Export
Edit
Delete
....
Logout
field 1
field 2
commit
cancel
Sign up window
First name
Last name
eMail address
......
Next
A Registered user specific window
Info 1
Info 2
Info 3
Edit Preferences
Logout
Search
Payment Center

Chapter 3

Use Cases Description

3.1 Identifying Actors

- Editor
- Reporter
- Customer
- External System
- Administrator
- InfoWarrrior Application
- Access Control Manager
- InfoWarrior Search Machine
- Storage Unit

3.2 Identifying Use Cases

- Subscribe to InfoWarrior Services
- Unsubscribe from InfoWarrior Services
- User logs in
- Customer edits Preferences
- Editor edits News
- User searches News
- User logs out
- Administrator creates a User

- Administrator searches User
- Administrator edits User Data
- Administrator deletes a User
- Administrator creates a category
- Administrator deletes a category

3.2.1 Description

1. **Name:** Subscribe to InfoWarrior Services
   Description: Somebody wants to subscribe to InfoWarrior services. She/he opens the official InfoWarrior web-page and clicks "Subscribe now!" link and enters necessary information (username, password, e-mail address,...) in order to create an account. Customer can decide whether she/he wants to use just free or billable InfoWarrior services as well. After submitting this information she/he becomes a user of the corresponding InfoWarrior services.

2. **Name:** Unsubscribe From InfoWarrior Services
   Description: A user wants to unsubscribe from InfoWarrior Services. She/he clicks "Unsubscribe From InfoWarrior Servceses" link. Then she/he will be asked does she/he want to unsubscribe from free InfoWarrior services, billable InfoWarrior services or from the both (free and billable) services. After submitting her/his decision, she/he won't be a user of corresponding InfoWarrior services anymore.

3. **Name:** User logs in
   Description: A user (editor, reporter, customer, administrator) wants to log in. She/he opens the official InfoWarrior web-page and enters her/his user name and password in the corresponding fields. If a user enters an incorrect user name or password a login incorrect window will be opened, and a user can try to log in again.Upon successful login new User Interface is shown, with features available depending on access level. That means, if for example, a reporter logs in, a reporter specific window will be opened.

4. **Name:** Customer edits Preferences
   Description: A Customer wants to edit her/his preferences. After login every user has a link "Edit Preferences". When she/he clicks this link, a page with her/his preferences will be opened. The preferences page contains user specific information : user name, encrypted password, e-mail address, mobile phone number, etc., that is, it contains all information given upon subscribing to InfoWarrior services. The user can now modify her/his preferences. After editing, she/he clicks a button "Submit changes" in order to apply changes to her/his account.

5. **Name:** Editor edits News
   Description: An editor wants to edit news. That means she/he wants to add, delete, or alter news. Upon login every editor has buttons for each of these actions. When she/he clicks one of these buttons, she/he can browse the files, that she/he

wants to add/delete/alter. After editing she/he has to commit "Submit changes" in order to apply changes to the system storage unit.

6. **Name:** User searches News
Description: A user(editor, reporter, customer, administrator) wants to search some news. She/he clicks "Search" link in order to start search page. A user can decide whether she/he wants to search Primary Storage (contains news which are not older than a month) or Secondary Storage (contains news older than a month, that means Secondary Storage presents an archive), or both, Primary and Secondary Storage. Then she/he enters wanted pattern in the corresponding field and clicks "Start Search" button. The InfoWarrior Search Machine outputs all news corresponding to the searching pattern.

7. **Name:** User logs out
Description: A user wants to log out. She/he clicks a "Logout" button. Then will be verified by the system does she/he really wants to log out or not. She/he submits her/his decision to the system, and the message "Successfully logged out" will be shown and the offical InfoWarrior page will be opened.

8. **Name:** Administrator creates a User (A Reporter or an Editor)
Description: Administrator wants to create a user. She/he selects a "Create User" link and a "Create User" page is opened. She/he enters necessary information, and submits it in order to apply a new user to the system.

9. **Name:** Administrator searches User
Description The administrator wants to view existing users. She/He selects "Search a User" link, enters search pattern for the users to be returned and clicks search. The system returns a list of matching users, from which the administrator can select a user.

10. **Name:** Administrator edits User Data
Description: Administrator wants to edit User Data. That means she/he wants to alter user(at this point user means either reporter or editor) information (like permissions). She/he clicks "Edit User Data" link. The list of current users will be shown. She/he searches and selects the user whose data she/he wants to edit. Now she/he modifies user data, and submits the changes in order to apply them to the system.

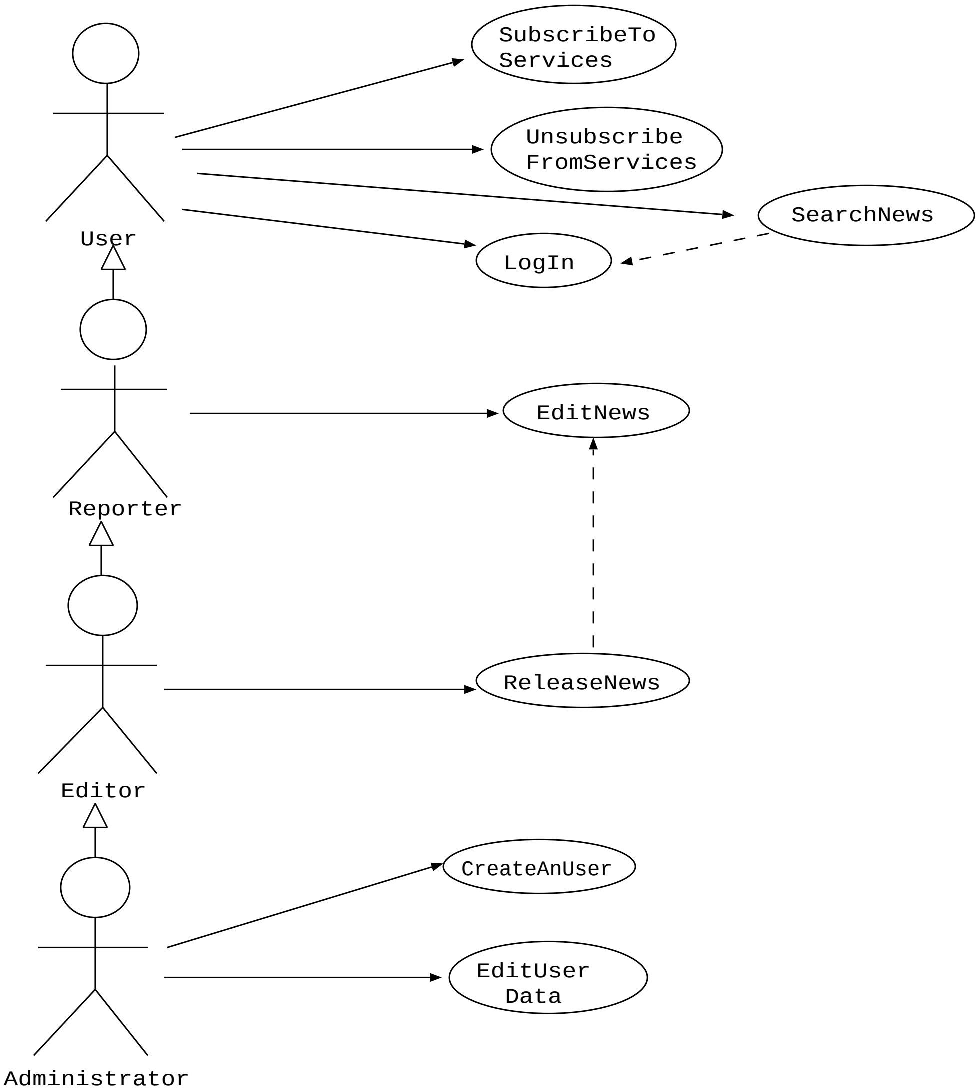
11. **Name:** Administrator deletes a User
Description: The administrator wants to delete a user. He selects "Delete a User" link, and searches the specific user as described in "Administrator searches User". He selects the specific user and "Delete a User" button. After confirmation from the administrator, the user is removed from the user storage.

12. **Name:** Administrator creates a category
Description: The administrator wants to create a new category for news. She/He selects "Create Category" link on his homepage. The "Create a Category" page is opened. Administrator enters the necessary information and submits it in order to create a new category.

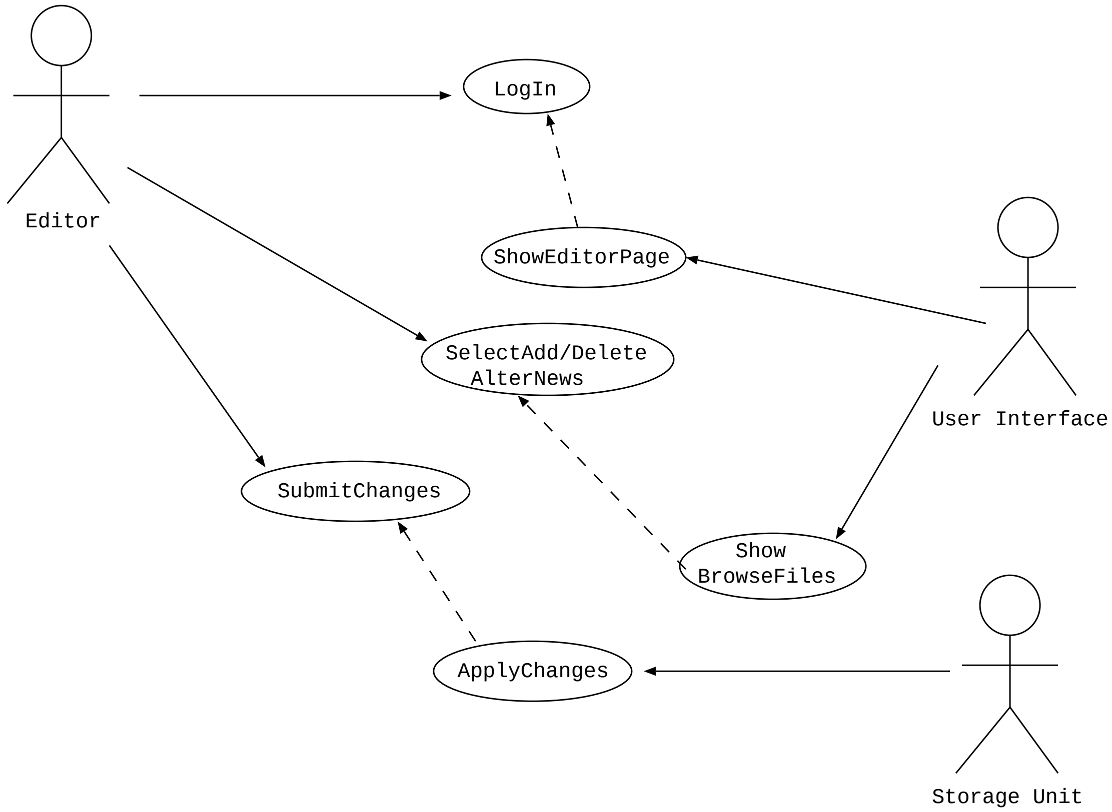
13. **Name:** Administrator deletes a category
Description: Administrator wants to delete a category. She/He selects the link on her/his homepage and on the next page the category he wants to delete. After the administrator confirms her/his decision, the system deletes the category and all news assigned to it.

3.2.2 Some Use Cases in UML

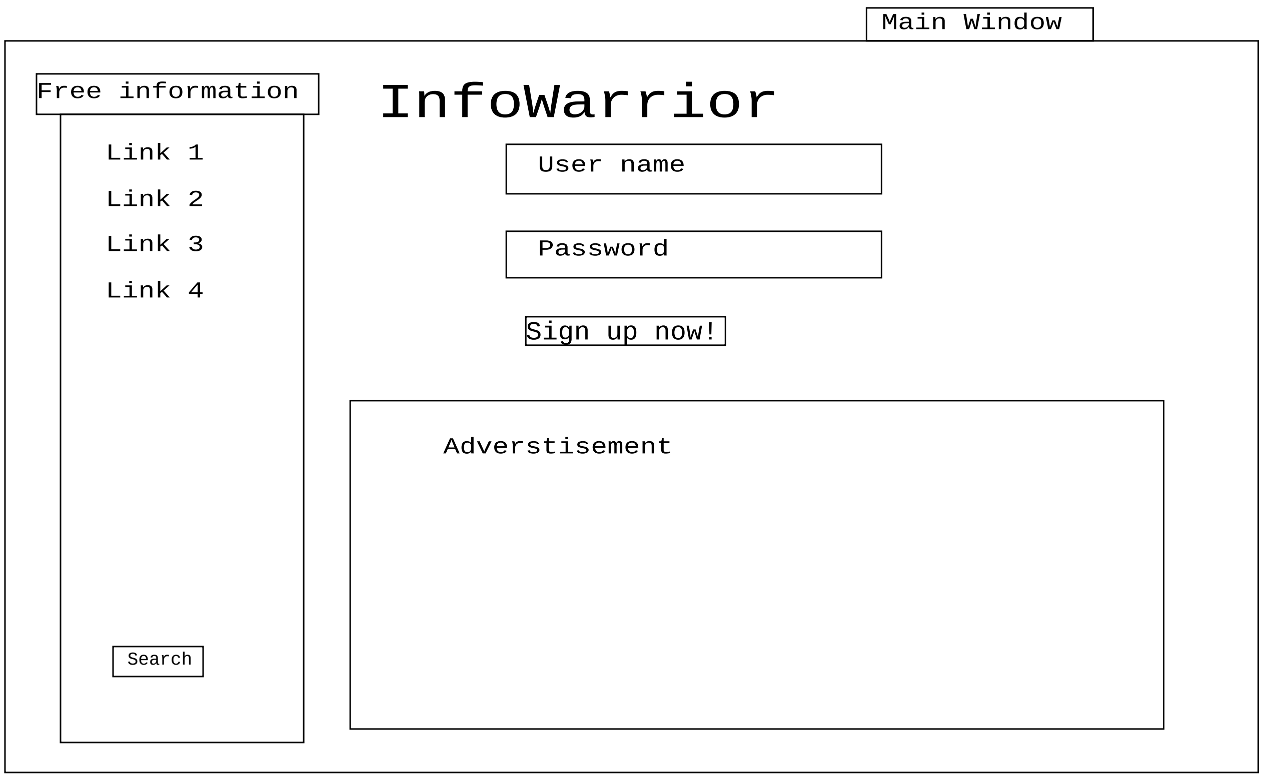
General Use Cases



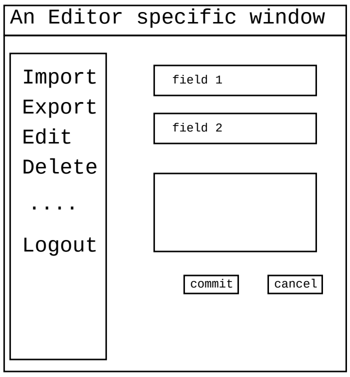
Editor Edits News

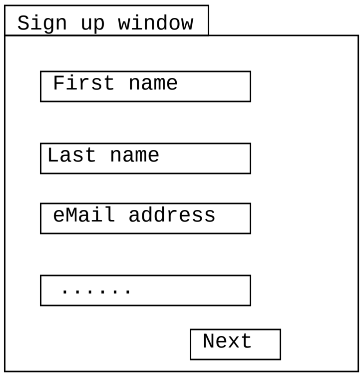


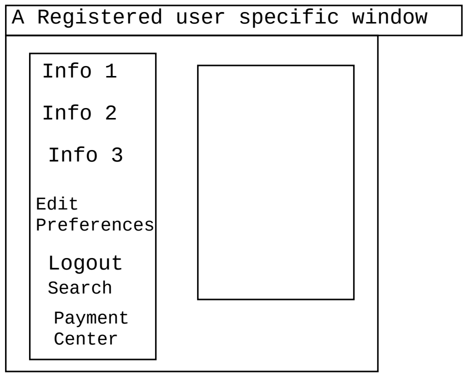
3.3 Essential User Interface Prototyping

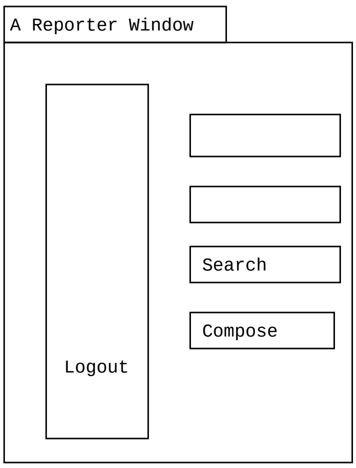


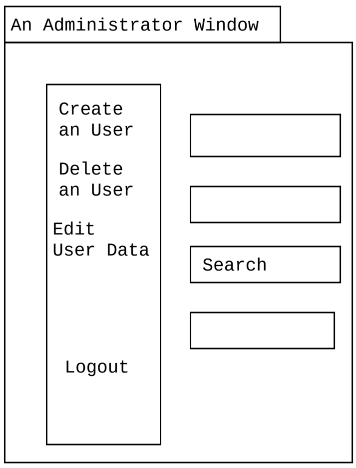
System contains one main window with links/buttons to other pages/windows. It is the same for normal users, editors and reporters. Upon login new User Interface is shown with features available depending on access level and demanded service. It can be “An Editor specific Window”, “A Reporter specific Window”,“An Adminstrator specific Window”, “Sign up window”, “A registered User specific Window”, “InfoWarrior Search Window”, or “Free Info Window”.

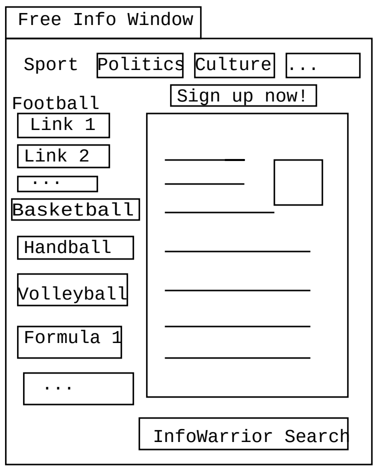


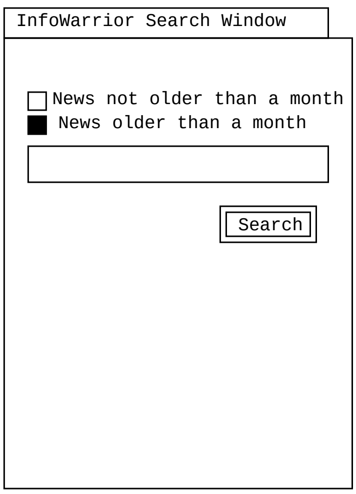


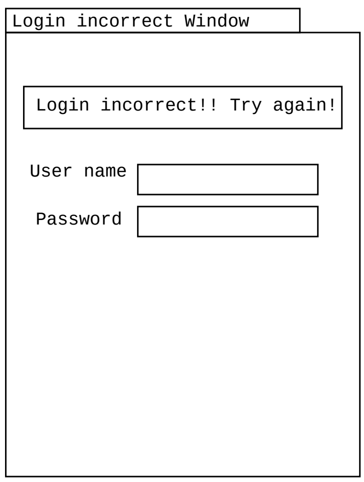




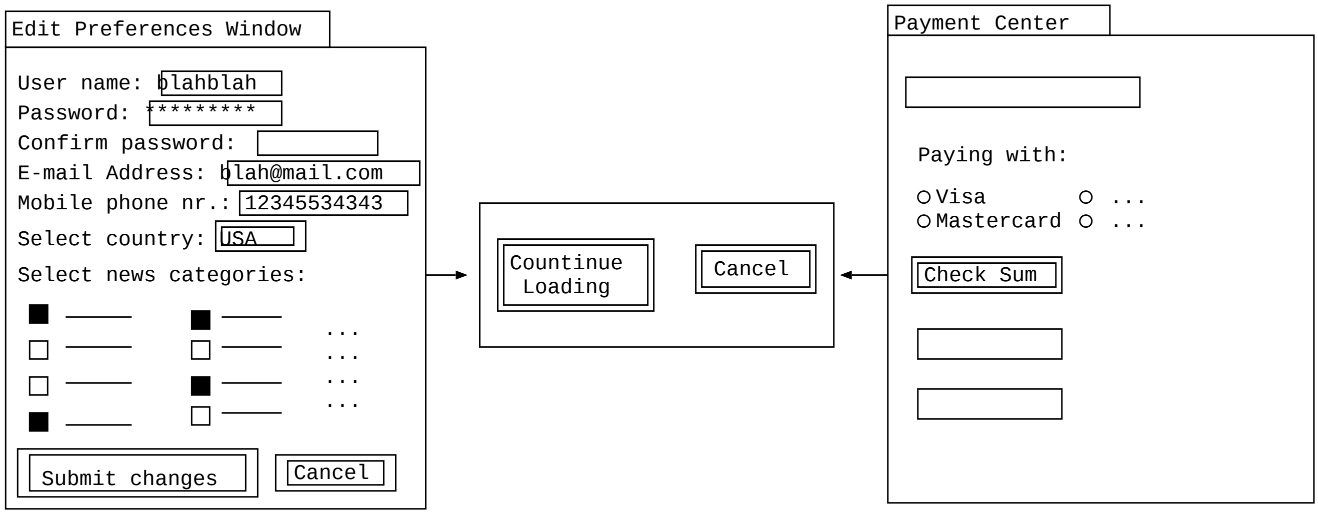








After successful login, a user can open different windows/pages, for example:



3.4 Open Questions (2)

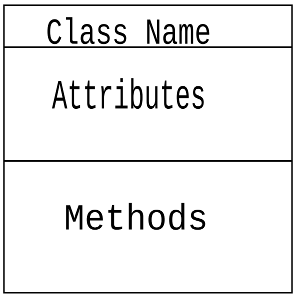
1. Can an editor edit her/his preferences?
2. Can a reporter edit her/his preferences?
3. What exactly has to do an administrator?

Chapter 4

Class Analysis

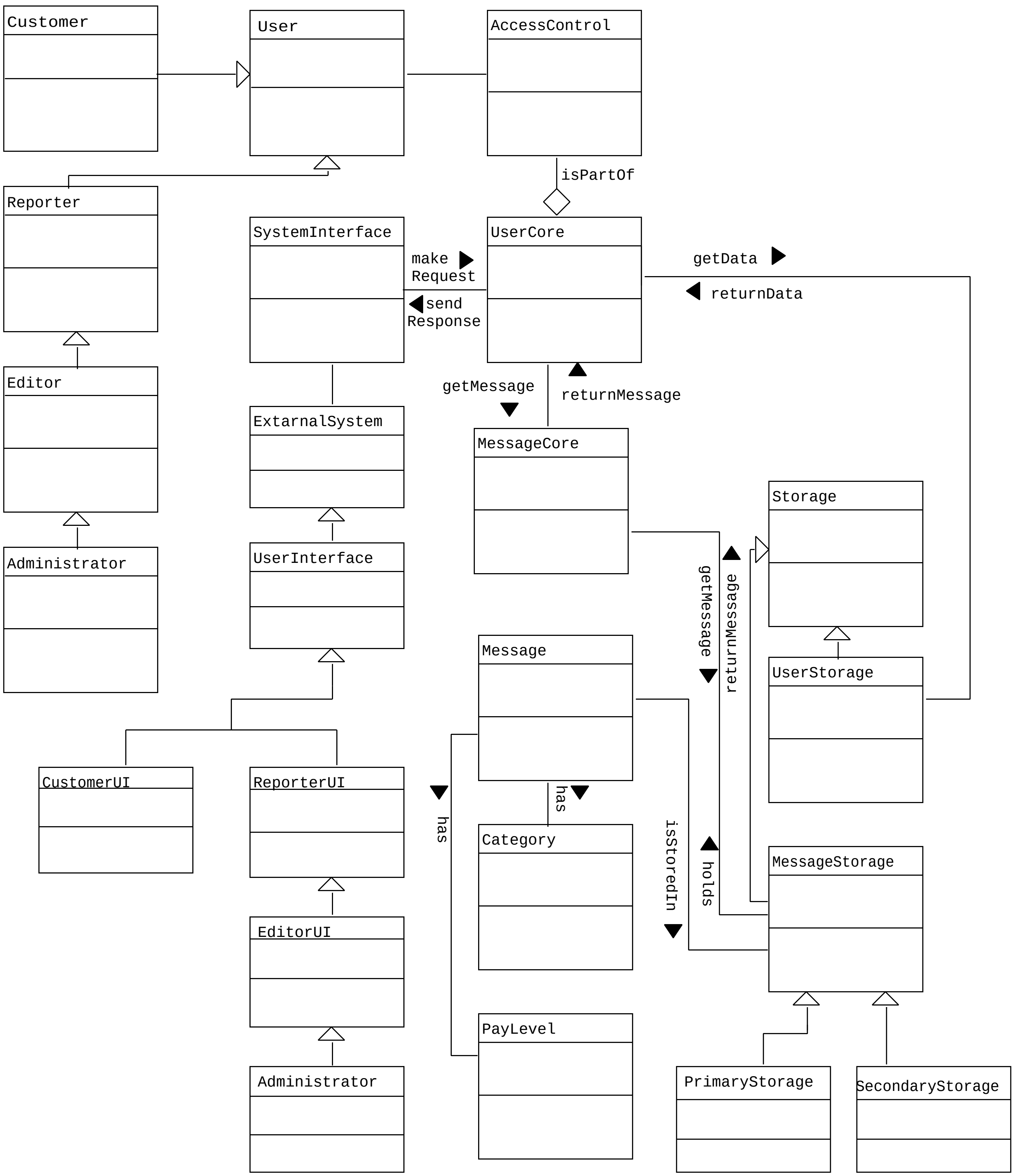
4.1 Class Diagrams

The purpose of a class diagram is to depict the classes within a model. In an object oriented application, classes have **attributes** (member variables), **methods** (member functions) and **relationships** with other classes. The fundamental element of the class diagram is an icon that represents a class:



In many diagrams, the bottom two compartments are omitted. Even when they are present, they typically do not show every attribute and method. The goal is to show only those attributes and methods that are useful for the particular diagram.

4.2 InfoWarrior Class Diagram



4.3 HTML Prototype

The HTML Protototype is based on the Essential User Interface Prototype presented in Chapter 3. The following examples of InfoWarrior pages are implemented and presented in this section:

- Homepage
- Login Incorrect Page
- Subscribe Page
- Customer Page
- Article Page
- Category Page (Sport)
- Search Page
- Search Result Page
- Reporter Page
- Edit Article Page
- Editor Page
- Release Article Page
- Administrator Page
- Create a User Page

InfoWarrior Homepage

- World
- Sport
- Entertainment
- Music
- Health
- Business
- Politics
- Computer & Technologie
- Travel
- Shopping
- Home & Family
- Weather
- Search
- Subscribe

World

- Suicide bomb at Israeli border
- 24 killed in Swiss plane crash

Computer & Technologie

- Sony hedges bets with DVD formats
- Microsoft's battle: On the antitrust trail
- Music publishers file new copyright suit

Entertainment

- 'Potter' continues to charm U.S. box office
- Dangerfield in intensive care after mild heart attack
- Larry Hagman: 'Tall' but 'True' tales

Sport

- Wimbledon: Capriati shocked
- Agassi overcomes Escude to meet Rafter – again

For existing InfoWarrior Users:

User name

Password

Log in Reset

Not subscribed yet?

Subscribe now!

Revised: Dezember 05, 2001.

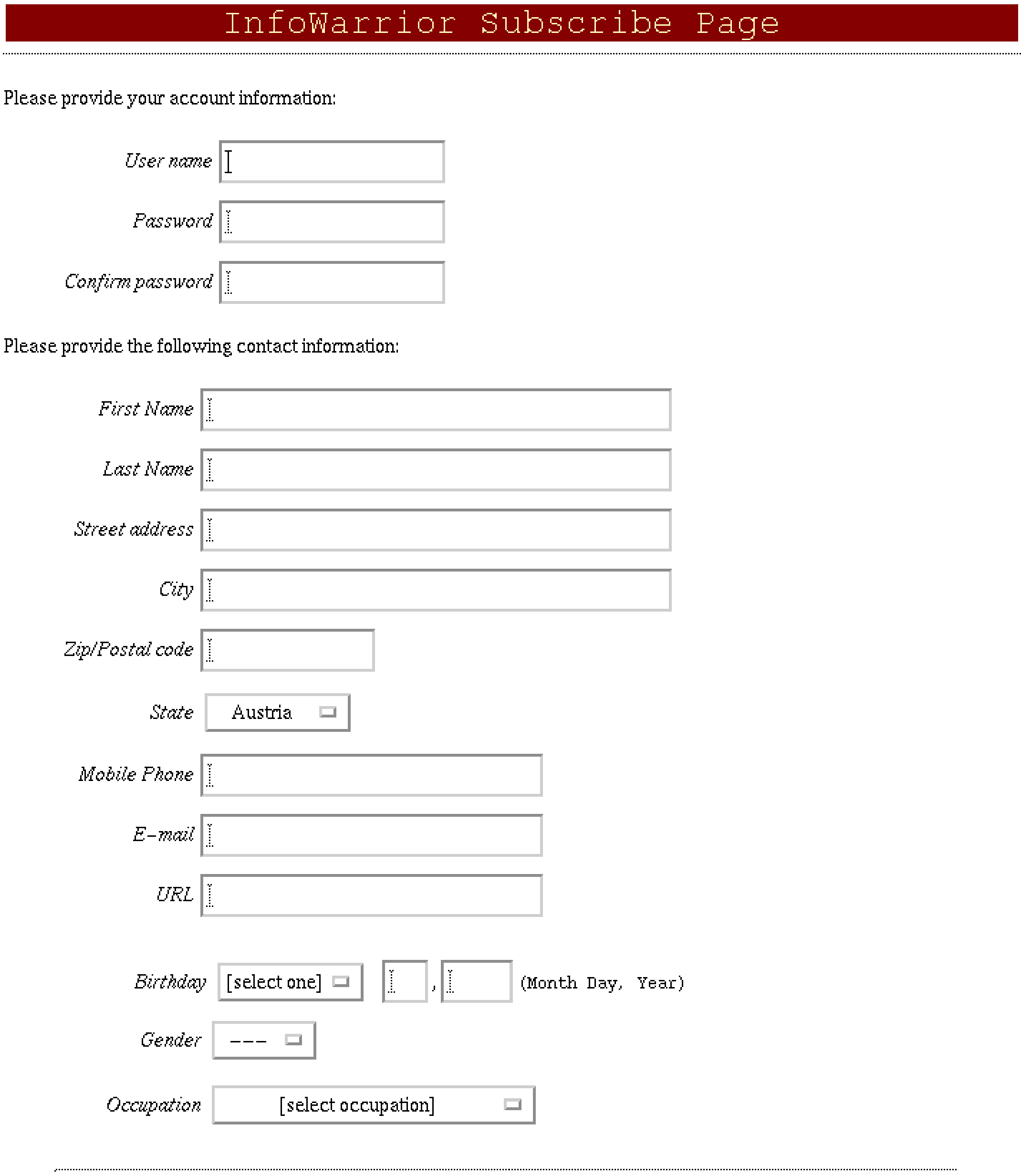
InfoWarrior Login Incorrect Page

Login incorrect! Please try again.

User name

Password

Log in Reset



InfoWarrior Subscribe Page

Please provide your account information:

User name

Password

Confirm password

Please provide the following contact information:

First Name

Last Name

Street address

City

Zip/Postal code

State Austria

Mobile Phone

E-mail

URL

Birthday [select one] , (Month Day, Year)

Gender ---

Occupation [select occupation]

Would you like to receive new messages per sms?

Yes No

Would you like to receive new messages per e-mail?

Yes No

Select message categories and payment level:

Category	**Payment Level**
Entertainment	Free Info
Home & Family	Free Info
Health	Free Info
Music	Free Info
Shopping	Free Info
Travel	Free Info
Business	Free Info
Computers & Technology	Free Info
Politics	Free Info
Sport	Free Info

Submitting this form You will become a user of specified InfoWarrior Services.

Submit Form Reset Form

InfoWarrior Customer Page

Welcome, Customer!

- Sport
- Entertainment
- Music
- Health
- Business
- Politics
- Computer & Technologie
- Travel
- Shopping
- Home & Family

- Search
- Edit Preferences
- Payment Center
- Unsubscribe

- Logout

Sport

Agassi overcomes Escude to meet Rafter – again

Second seed Andre Agassi battled past Nicolas Escude to reach his fifth semifinal at Wimbledon with a 6–7 6–3 6–4 6–2 victory on Wednesday. He will now play Australian Pat Rafter for the third year running in the last four. **More...**

Schumacher backs Bernoldi

Michael Schumacher waded into the row between Enrique Bernoldi and McLaren on Thursday, defending the Brazilian's actions in holding up David Coulthard for much of the recent Monaco Grand Prix. **More...**

Computer & Technologie

Microsoft's battle: On the antitrust trail

Microsoft changes its legal guard, as Bill Neukom retires. But what's there to do now? Settlement deals are moving forward, but the EU is still hot on the case. **More...**

FBI snoop tool old hat for hackers

"Magic Lantern," a reported method for sneaking surveillance programs onto a suspect's computer, appears to be little more than old hacking technology.**More...**

InfoWarrior Page

Sport | Entertainment | Music | Health | Business | Politics | Computer & Technologie | Travel | Shopping | Home & Family

- Tennis
- Football
- Formula 1
- Cycling
- Athletics
- Wintersports
- Volleyball
- Basketball
- Rugby
- Motorsports
- Search
- Edit Preferences
- Payment Center
- Logout

Agassi Overcomes Escude to Meet Rafter – Again

Second seed Andre Agassi battled past Nicolas Escude to reach his fifth semifinal at Wimbledon with a 6–7 6–3 6–4 6–2 victory on Wednesday. He will now play Australian Pat Rafter for the third year running in the last four.

Although the American raced to a 3–1 lead in the first set after breaking France's Escude in the opening game with a delicate lob, the 24th seed fought back bravely to level at 3–3 with superb attacking net play.

The set saw another exchange of breaks before Escude, conqueror of Lleyton Hewitt and Sebastien Grosjean in the previous two rounds, captured it on his sixth set point in the tiebreak 7–3.

With his unfancied opponent threatening to gain the upper hand, Agassi dug deep to get his blistering service returns back on track in the second set.

The 31–year–old, the only former champion left in the draw, kept his cool and broke Escude's serve four times in the last three sets to seal victory.
Eurosport : Reuters

Headlines

- Wimbledon: Capriati shocked
- Henman claws his way into semi–finals
- Goran rumbles into semis
- Rafter beats Enqvist to reach semis
- Ivanisevic books historic semifinal

InfoWarrior Sport Page

Sport | Entertainment | Music | Health | Business | Politics | Computer & Technologie | Travel | Shopping | Home & Family

- Tennis
- Football
- Formula 1
- Cycling
- Athletics
- Wintersports
- Volleyball
- Basketball
- Rugby
- Motorsports
- Search
- Edit Preferences
- Payment Center
- Logout

Tennis

- Wimbledon: Capriati shocked
- Henman claws his way into semi–finals
- Goran rumbles into semis
- Rafter beats Enqvist to reach semis
- Ivanisevic books historic semifinal

Football

Formula 1

InfoWarrior Search Page

Search within category:

Sport

☐ News older than a month

☐ News not older than a month

Search for:

Andre Agassi

[Start Search] [Reset]

InfoWarrior Search Result Page

Searched InfoWarrior for *Andre Agassi*:

Agassi overcomes Escude to meet Rafter – again

Second seed Andre Agassi battled past Nicolas Escude to reach his fifth semifinal at Wimbledon with a 6–7 6–3 6–4 6–2 victory...

Tennis: Melbourne 2001

... **Andre Agassi** is one match away from defending his Australian Open title this year in Melbourne.

ANDRE AGASSI AND STEFFI GRAF WED IN A PRIVATE CEREMONY IN ...

... **Andre Agassi** and Steffi Graf, seen here at a recent charity event in Las
Vegas, are expecting their first child in...

The baby of Steffi Graff and **Andre Agassi** picture by D' ...

This imaginary portrait of the baby of Steffi Graff and **Andre Agassi** was done for German television. ...

Tennis: Working out with ... **Andre Agassi**

... Do you think Patrick Rafter should retire after December's Davis Cup match? Yes. No. Comments: Working out with ... **Andre Agassi**. by Andrea Leand. ...

InfoWarrior Search

Search within category:

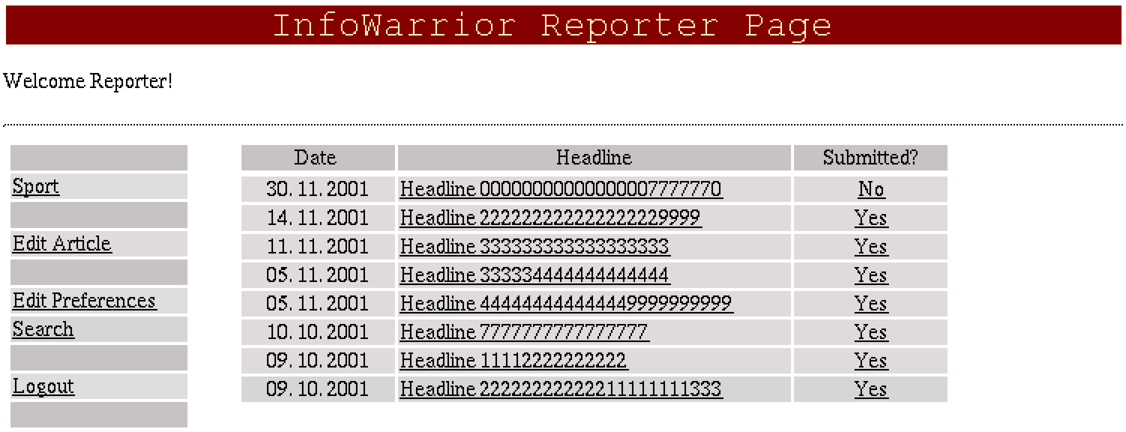
[all]

☐ News older than a month

☐ News not older than a month

Search for:

[Start Search] [Reset]


InfoWarrior Reporter Page
Welcome Reporter!
Sport
Edit Article
Edit Preferences
Search
Logout
Date
Headline
Submitted?
30. 11. 2001
Headline 0000000000000000007777770
No
14. 11. 2001
Headline 2222222222222222229999
Yes
11. 11. 2001
Headline 333333333333333333
Yes
05. 11. 2001
Headline 333334444444444444
Yes
05. 11. 2001
Headline 44444444444444499999999999
Yes
10. 10. 2001
Headline 7777777777777777
Yes
09. 10. 2001
Headline 11112222222222
Yes
09. 10. 2001
Headline 2222222222222111111111333
Yes


InfoWarrior Edit Article Page
Select an editor:
Editor 1
Enter PID:
View submitted files:
Show File List
Attachment:
Browse...
Edit Article
Search
Edit Preferences
Logout
Submit Article
Clear Article
Save Article

InfoWarrior Editor Page

Welcome Editor!

- Edit Article
- My Articles
- Search
- Edit Preferences
- Logout

Date	Headline	Reporter	Realesed ?
30. 11. 2001	Headline 1111111111111199999999999	0071	No
23. 11. 2001	Headline 121213495805908	0078	No
12. 11. 2001	Headline 4909949949459040767676767676 7	0123	No
12. 11. 2001	Headline 8399900099999999999	0321	Yes
12. 11. 2001	Headline....	0432	No
10. 11. 2001	Hedline.....	1234	Yes

InfoWarrior Editor Articles Page

- Edit Article
- My Articles
- Edit Preferences
- Search
- Logout

Date	Headline	Submitted?
30. 11. 2001	Headline 00000000000000000	No
29. 11. 2001	Headline 1111111111111111	No
14. 11. 2001	Headline 22222222222222222	Yes
11. 11. 2001	Headline 333333333333333333	Yes
05. 11. 2001	Headline 333334444444444444	Yes
05. 11. 2001	Headline 44444444444444	Yes
10. 10. 2001	Headline 7777777777777777	Yes
09. 10. 2001	Headline 11112222222222	Yes

InfoWarrior Release Article Page

- Edit Article
- My Articles
- Search
- Edit Preferences
- Logout

From: Reporter xy

Attachment:

View Attachment

Release Article Save Article

InfoWarrior Admin Page

Welcome Admin!

Create a User
Delete a User
Edit User Profile
Create a Category
Delete a Category
Customize Database
View System Log

Logout

InfoWarrior Create A User Page

Account information:

User name

Password

Confirm password

Contact information:

Name

Title

Street address

City

State Austria

Zip/Postal code

Work Phone

Mobile Phone

FAX

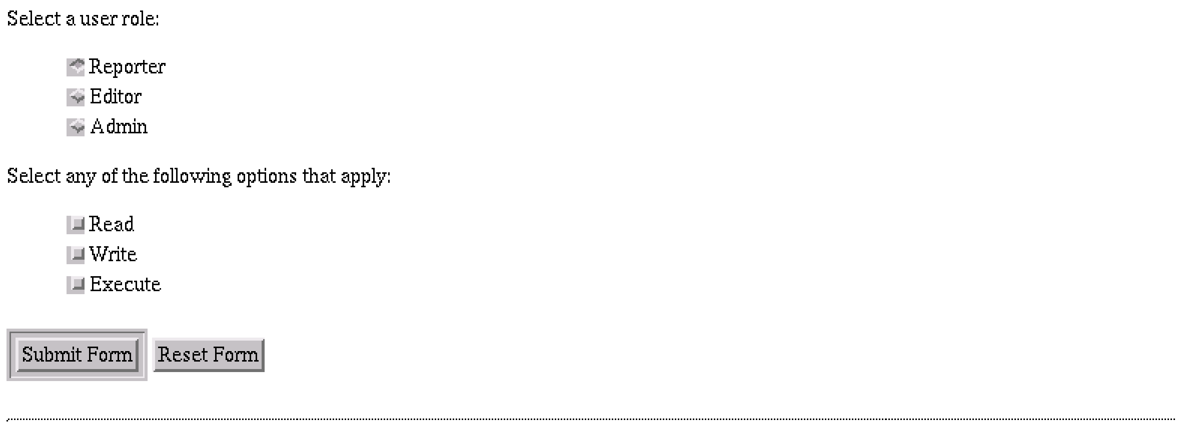
E-mail

URL

Birthday [select one] , (Month Day, Year)

Gender ---

Occupation [select occupation]



4.4 WML Prototype

The WML prototype is based on a reduced version of the Essential User Interface Prototype. Essential UI Prototype had to be modified in order to fit it on the small screen of a cell phone. Only customer specific pages are modelled in WML, because a reporter or an editor or an administrator interface would be unusable on cell phone.
The following WML pages are implemented:

Index Page

Login

Customer Page

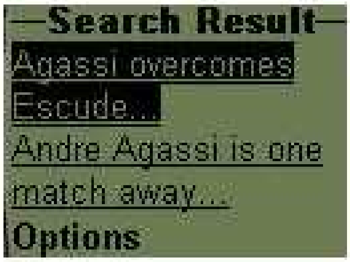
Read News

Article

Categories

Sport

Search



Search Results

Chapter 5

Sequence and Activity Diagrams

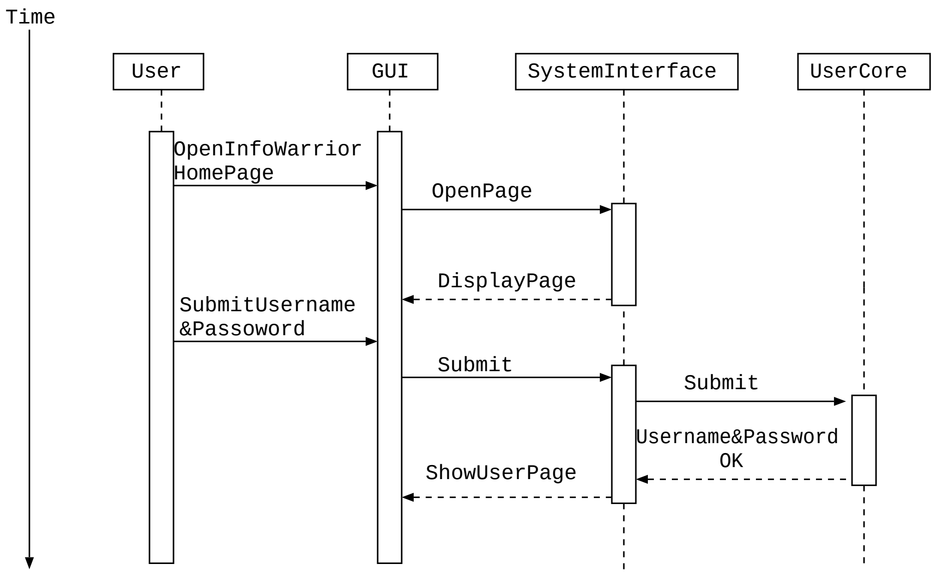
5.1 Introduction

Sequence diagrams are used to model the logic of usage scenarios (indicates the description of a potential way your system is used.)
Activity diagrams are used to model the logic of use cases, business proceses or methods. Activity diagrams are equivalent to the flow diagrams in procedural programing.

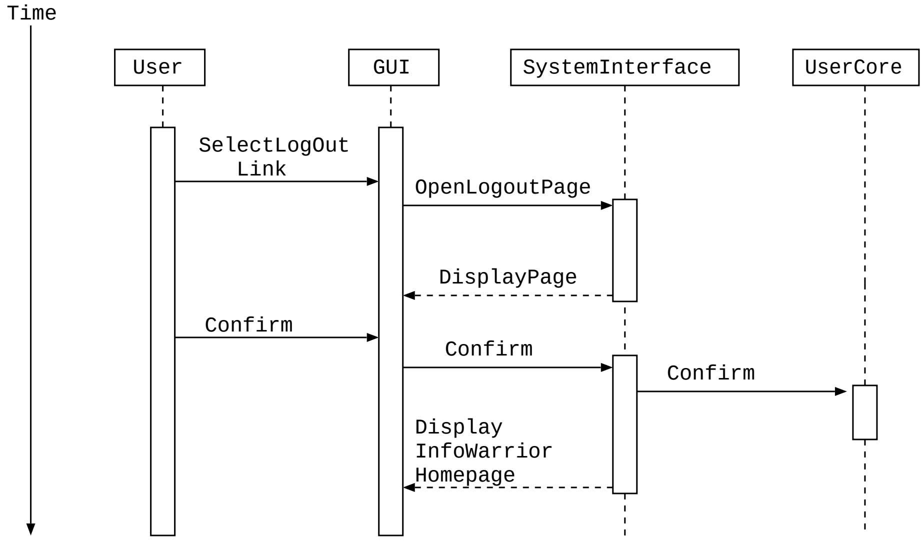
5.2 Sequence Diagrams in InfoWarrior

5.2.1 User Specific Sequence Diagrams

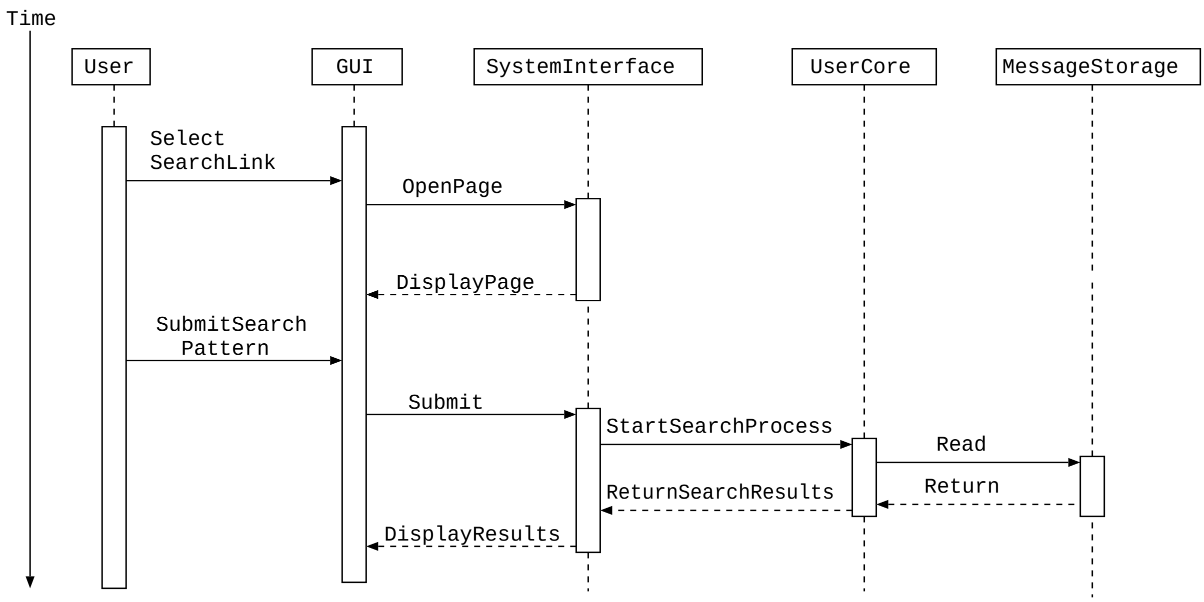
1. Log in



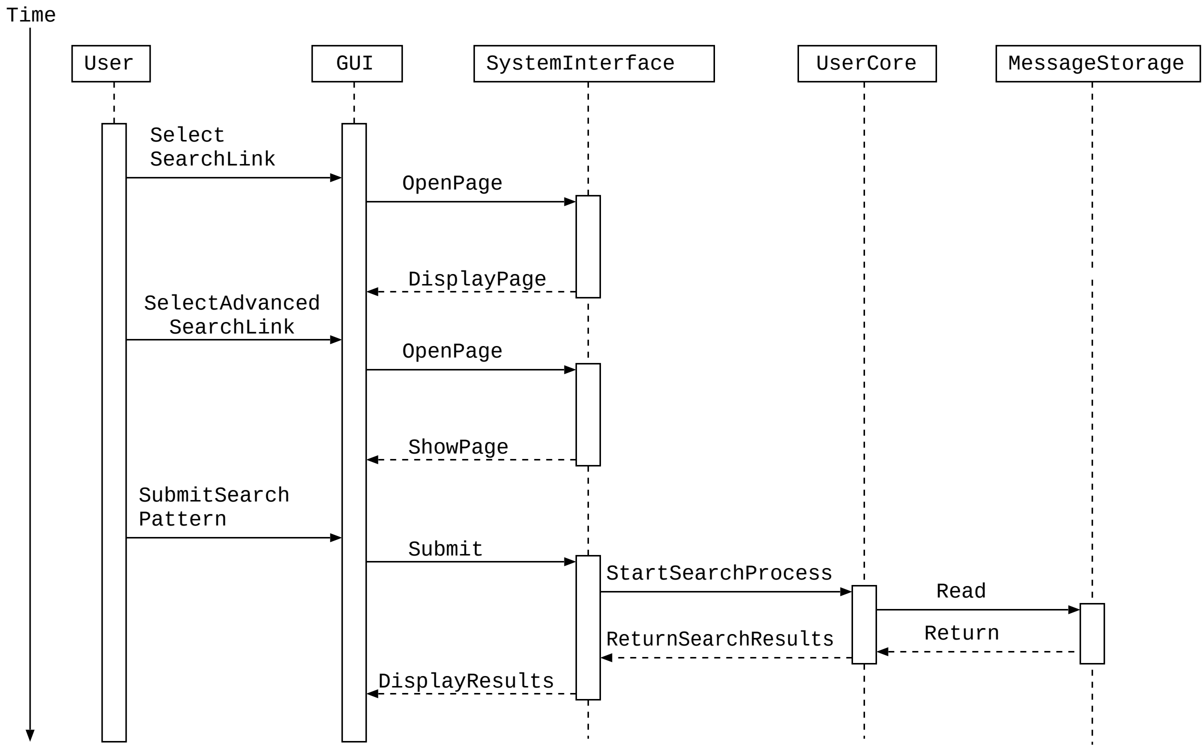
2. Log out



3. Search

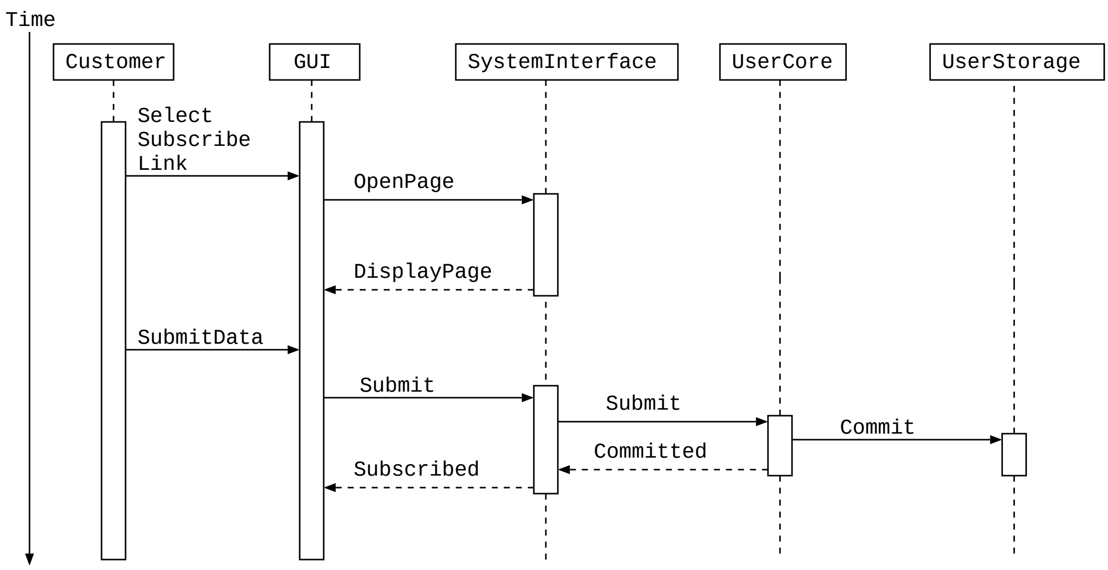


4. Advanced Search

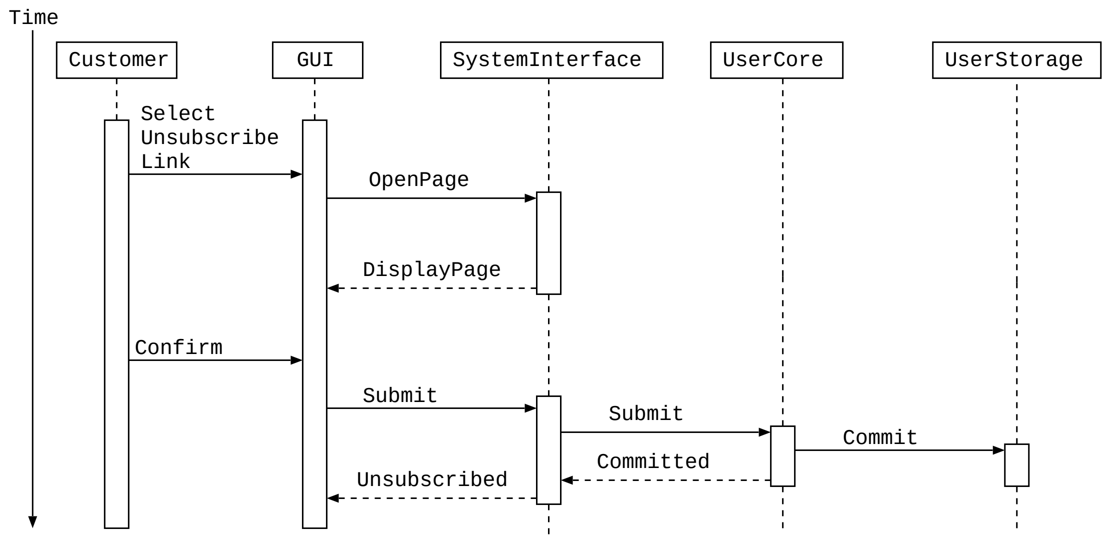


5.2.2 Customer Specific Sequence Diagrams

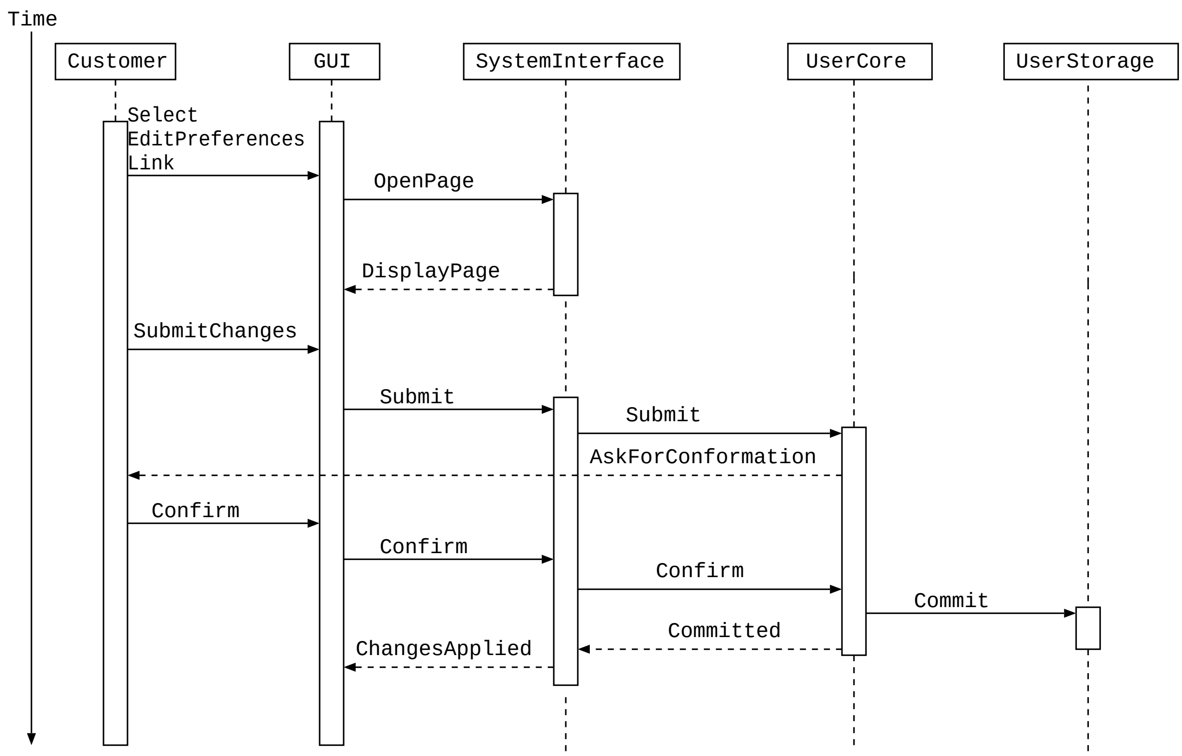
1. Subscribe to InfoWarrior Services



2. Unsubscribe from InfoWarrior Services

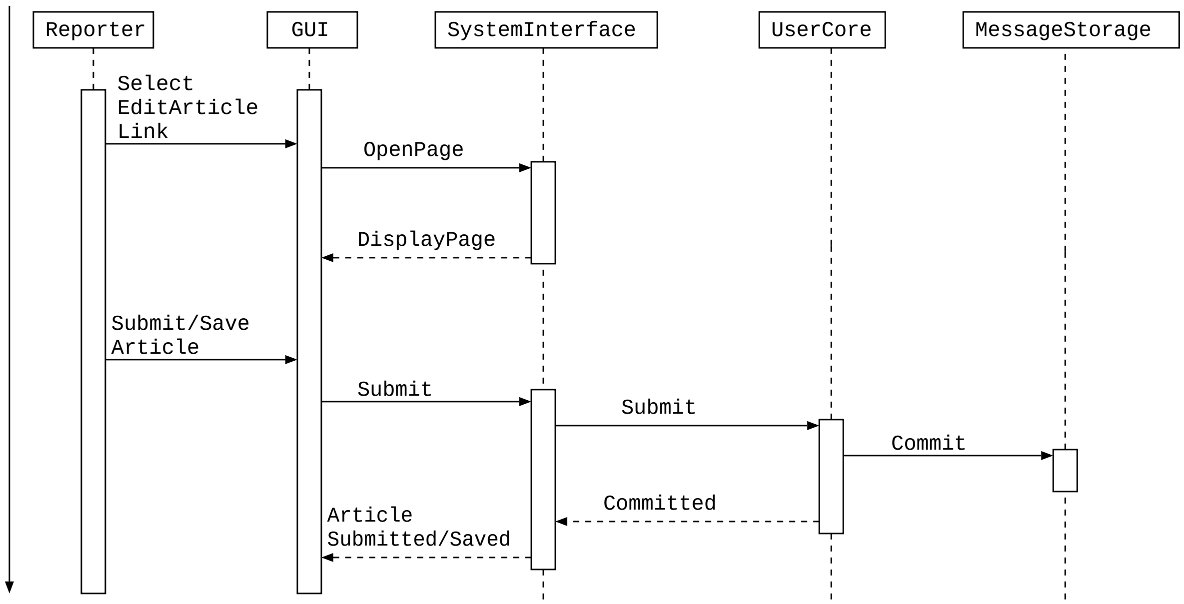


3. Edit Preferences



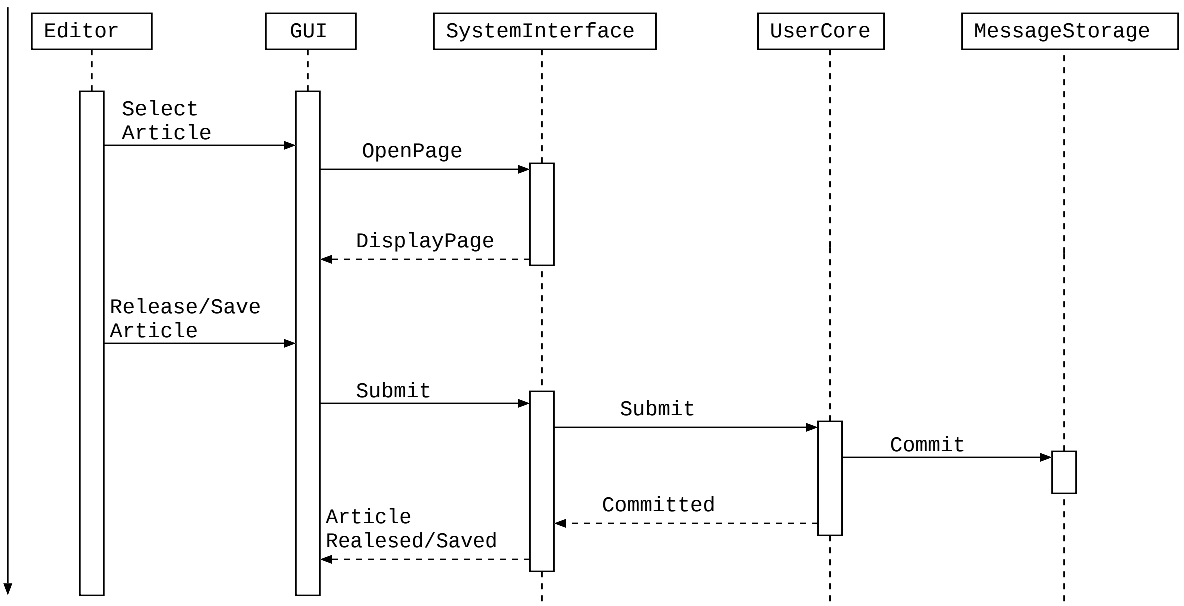
5.2.3 Reporter Specific Sequence Diagrams

1. Edit and Submit/Save Article



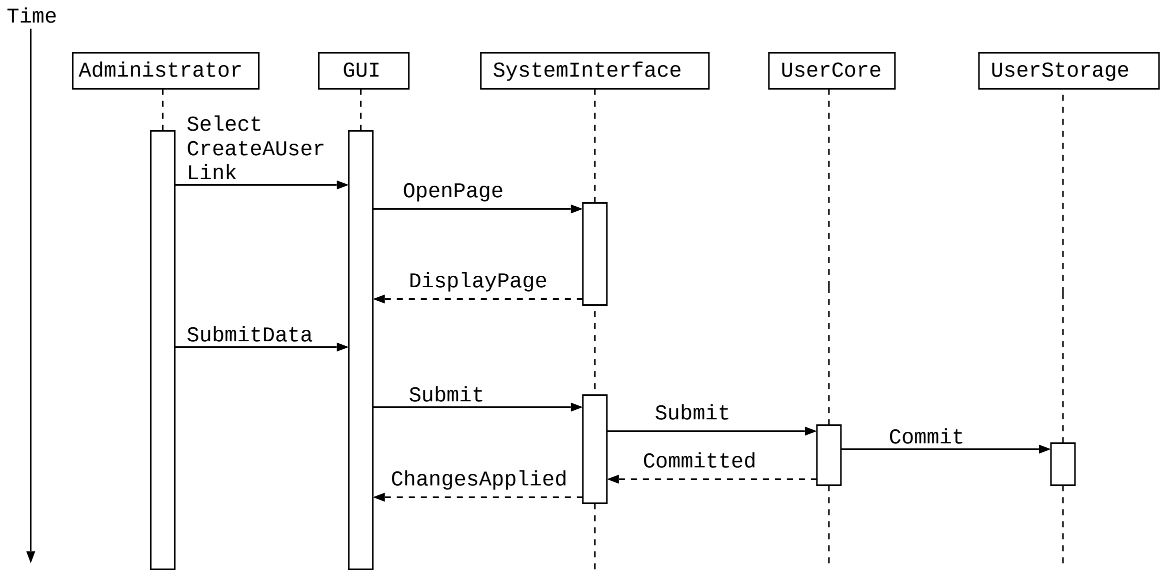
5.2.4 Editor Specific Sequence Diagrams

1. Release Article

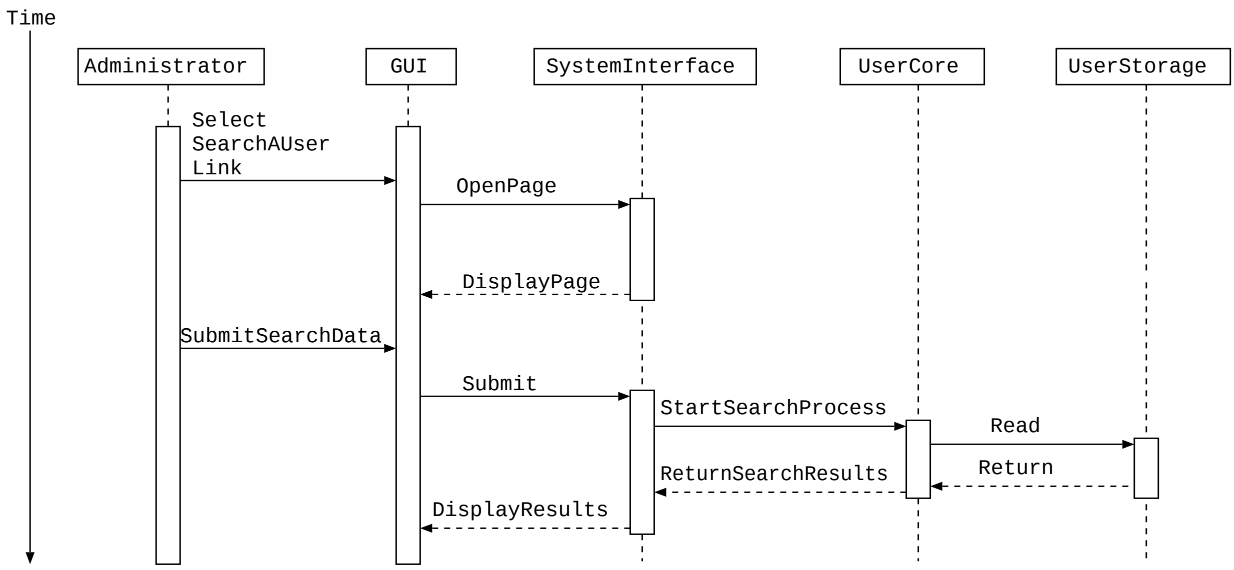


5.2.5 Administrator Specific Sequence Diagrams

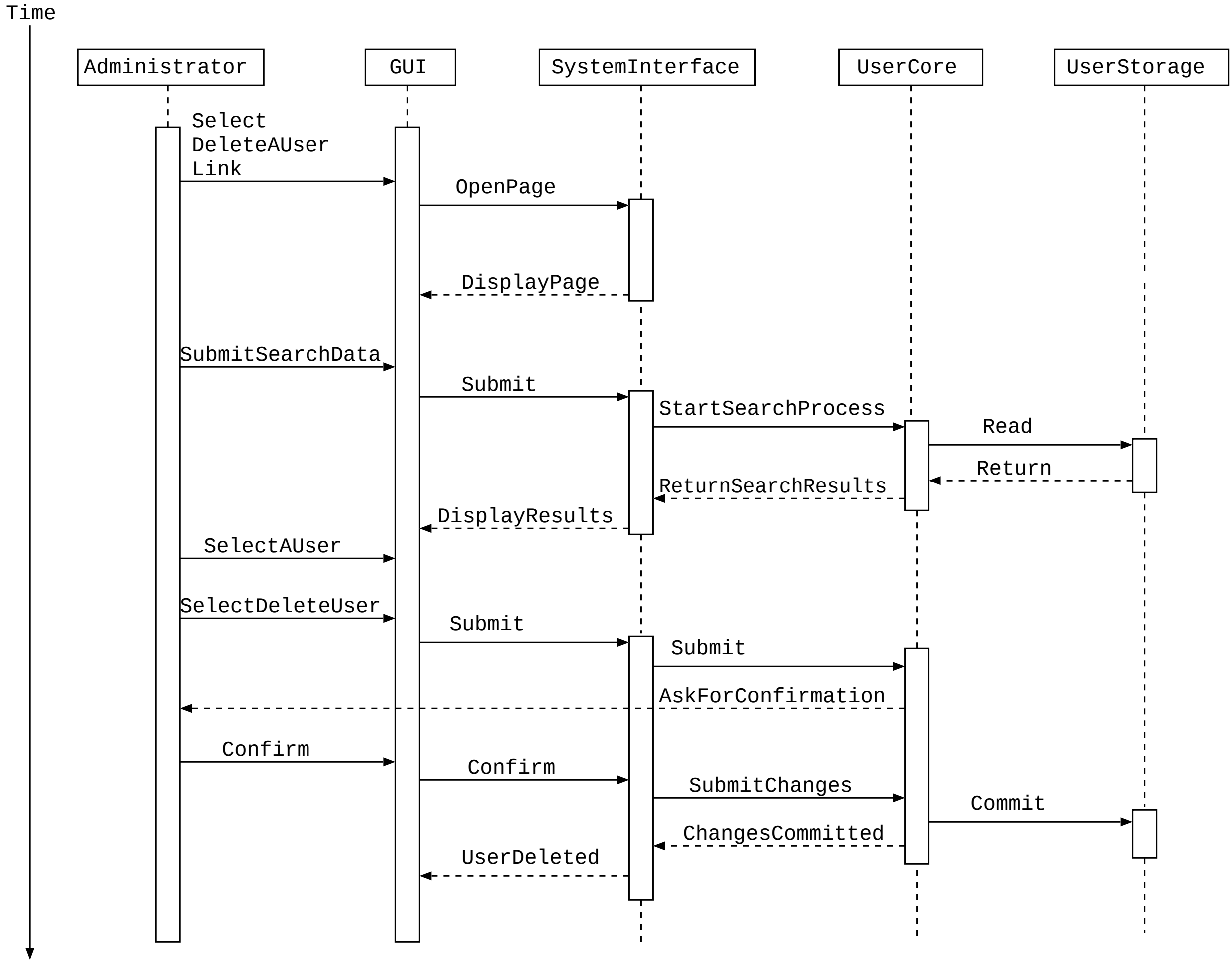
1. Create a User



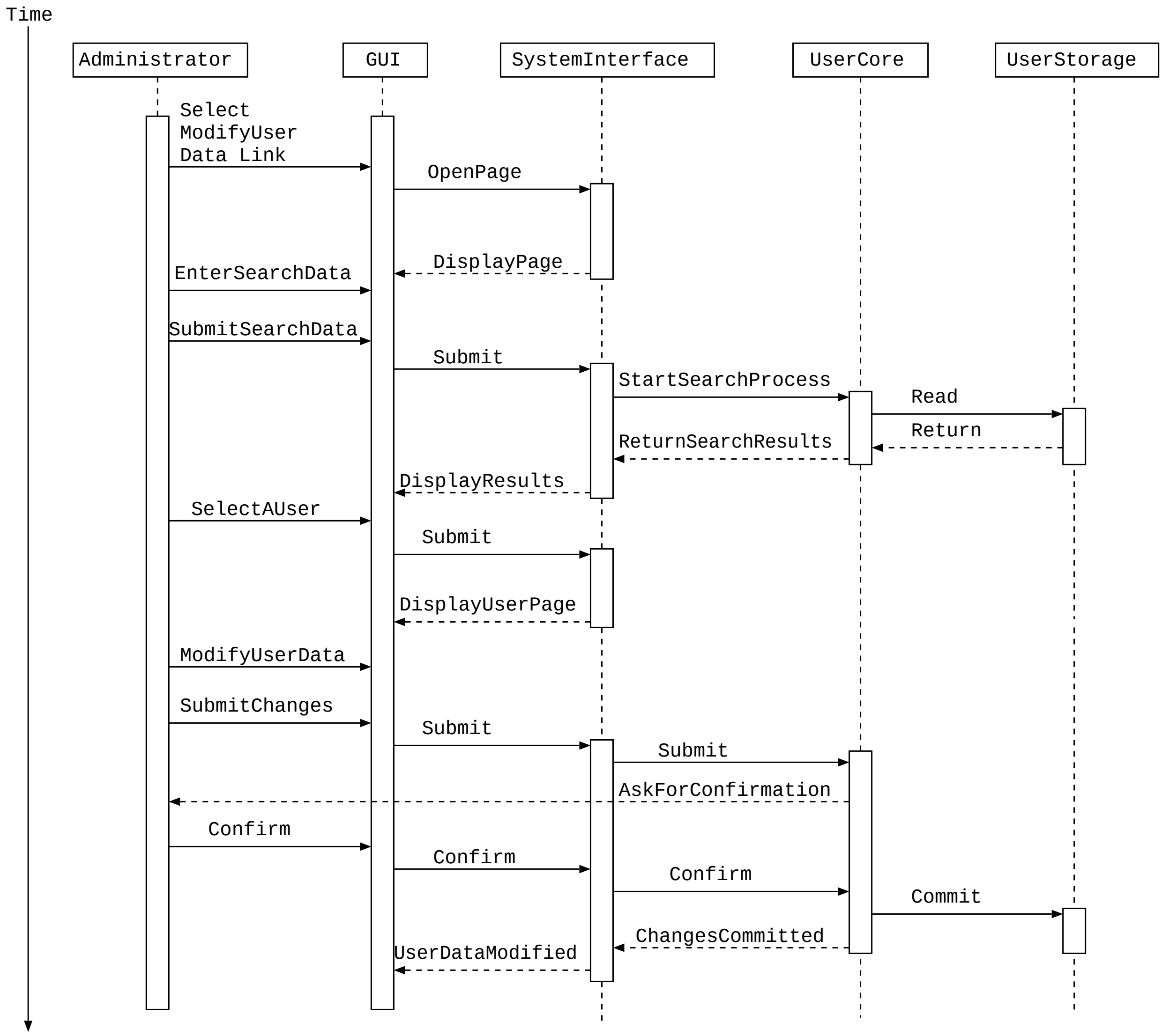
2. Search a User



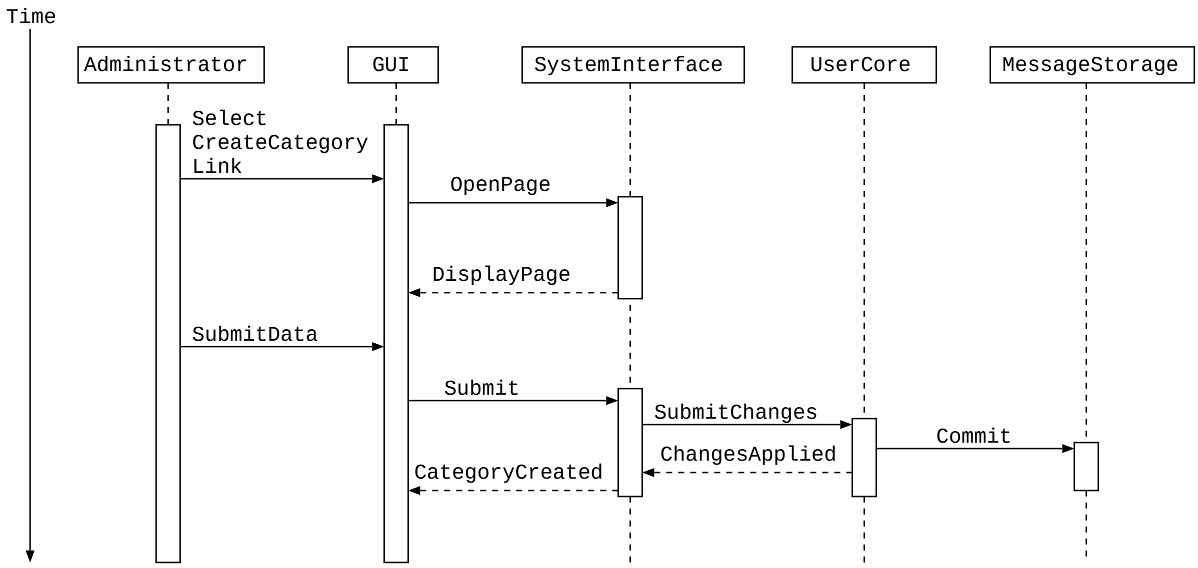
3. Delete a User



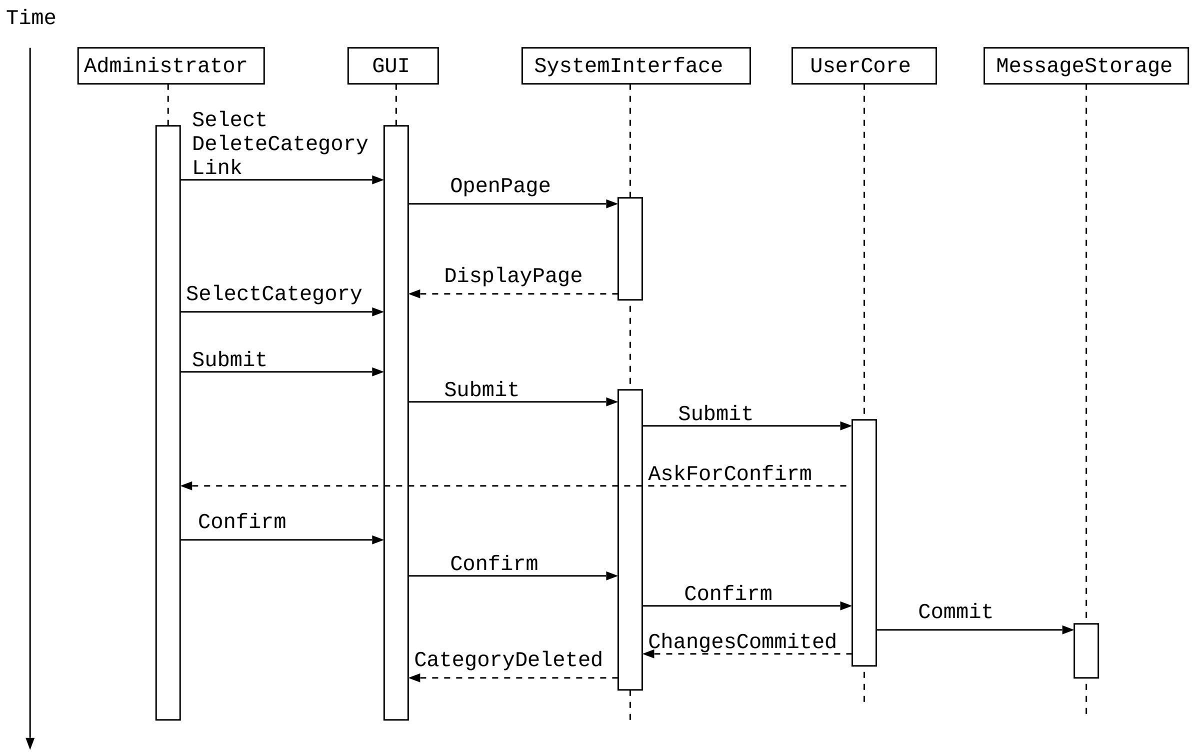
4. Modify User Data



5. Create a Category

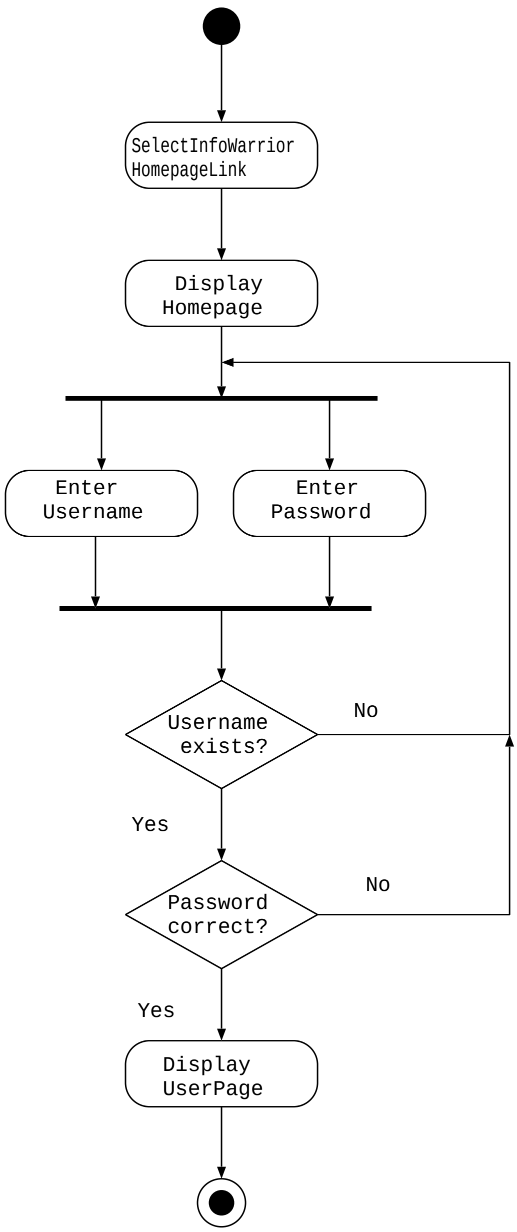


6. Delete a Category

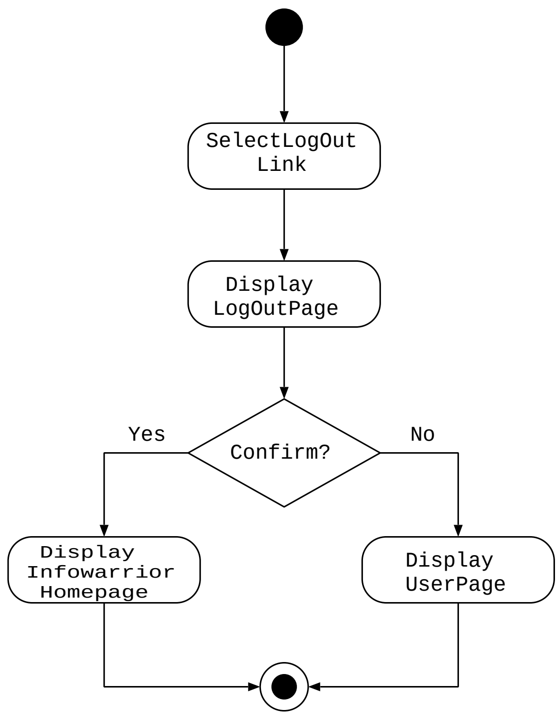


5.3 Activity Diagrams in InfoWarrior

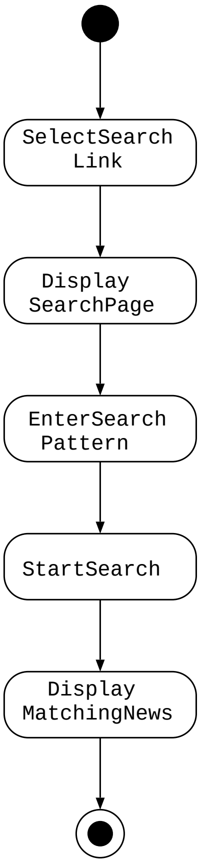
5.3.1 User Specific Activity Diagrams



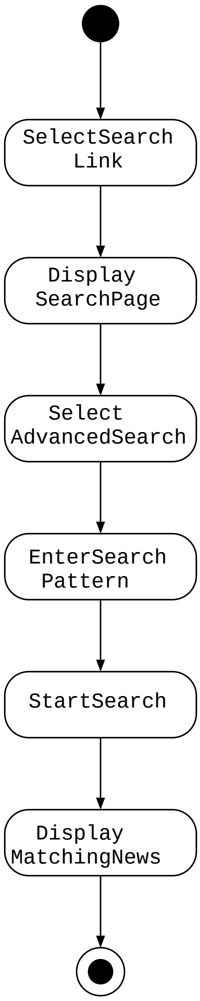
Activity Diagram: Log In



Activity Diagram: Log Out

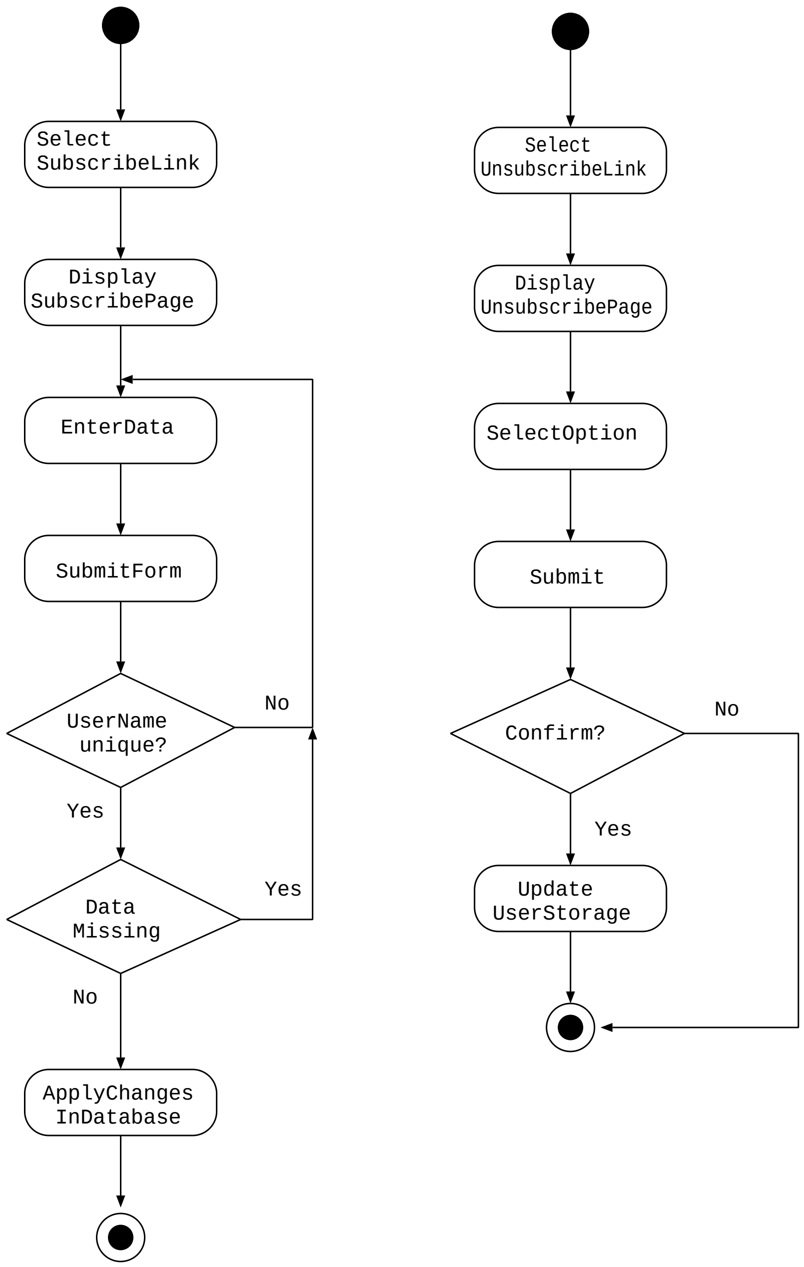


Activity Diagram: InfoWarrior Search



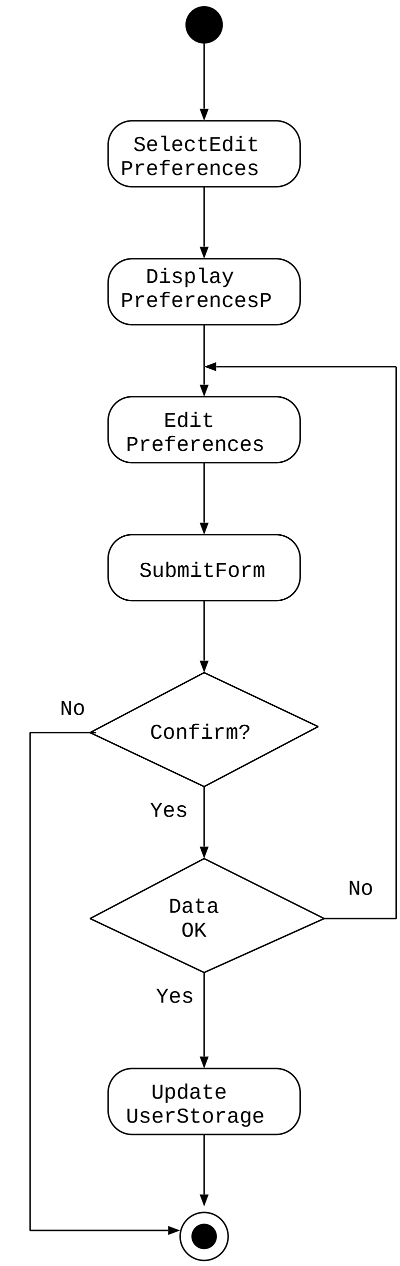
Activity Diagram: Advanced InfoWarrior Search

5.3.2 Customer Specific Activity Diagrams



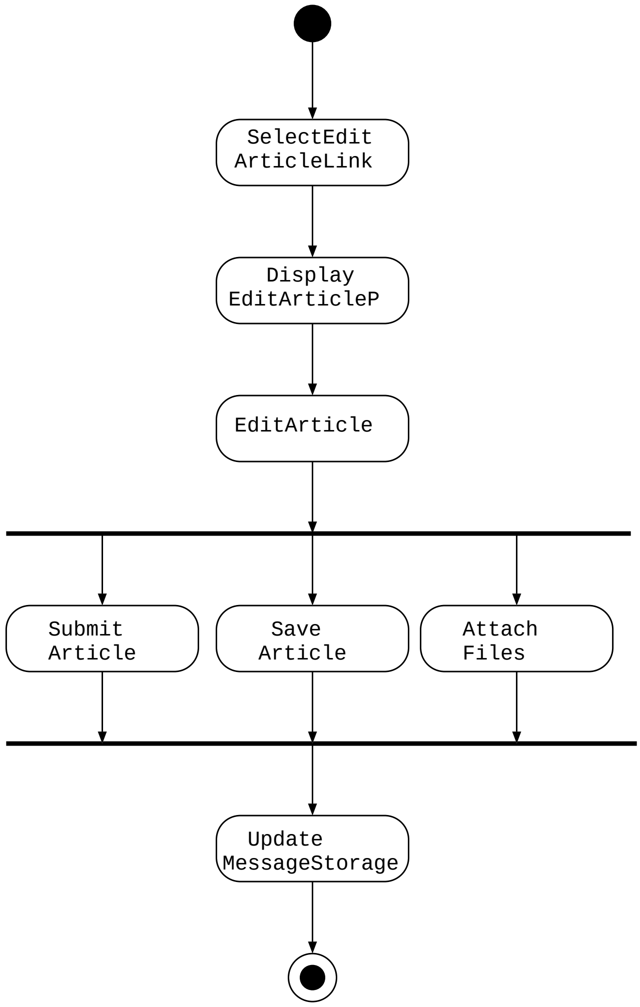
Activity Diagram: Subscribe

Activity Diagram: Unsubscribe



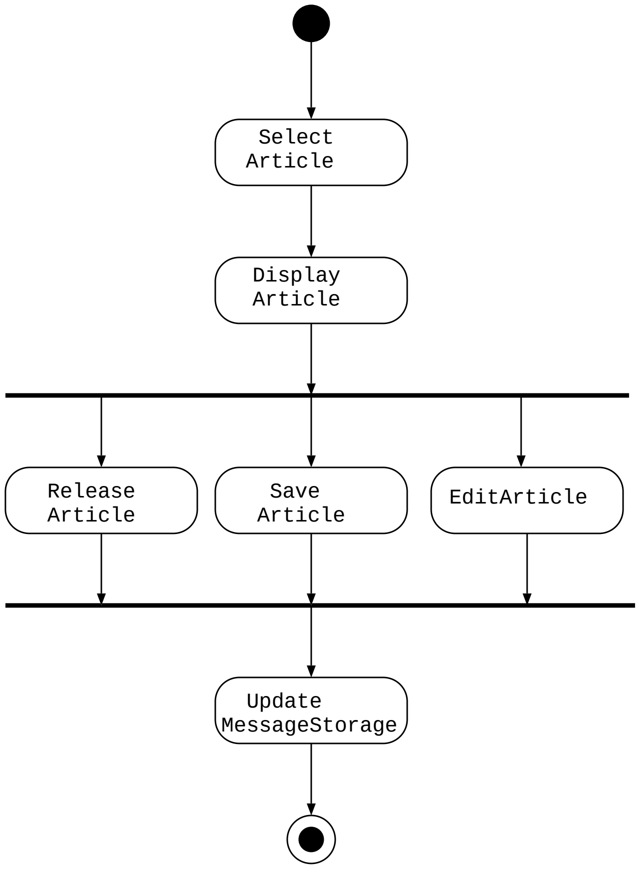
Activity Diagram: Edit Preferences

5.3.3 Reporter Specific Activity Diagrams



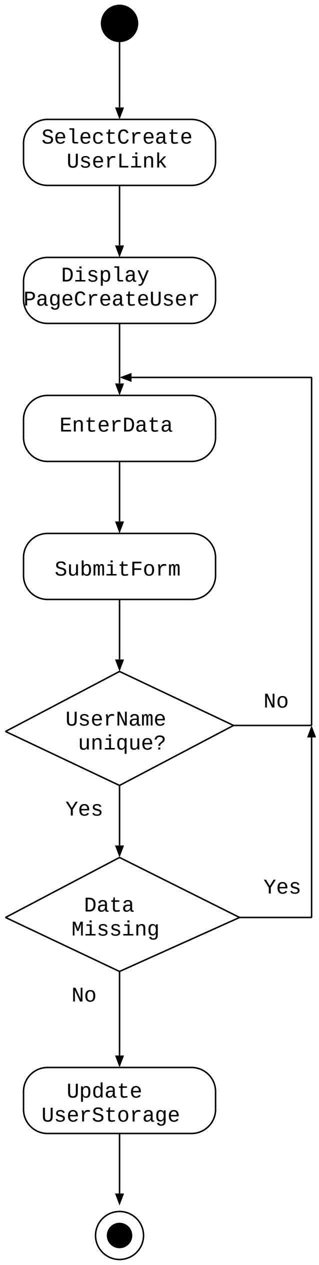
Activity Diagram: Edit Submit/Save Article

5.3.4 Editor Specific Activity Diagrams

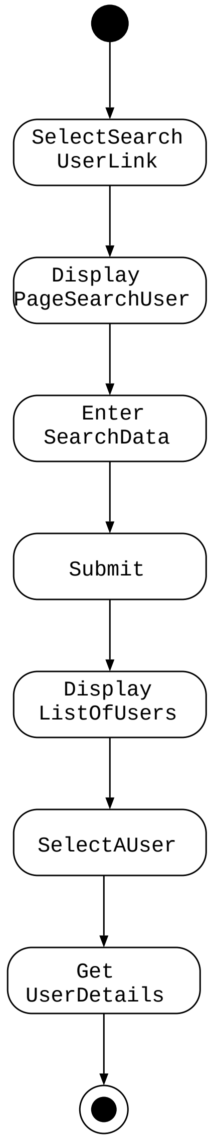


Activity Diagram: Release Article

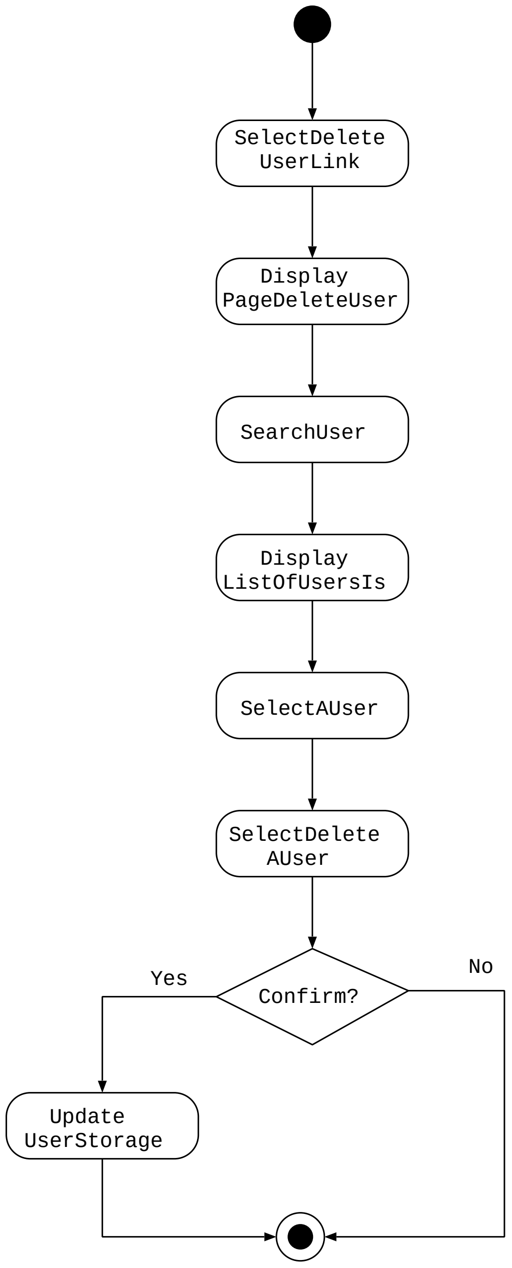
5.3.5 Administrator Specific Activity Diagrams



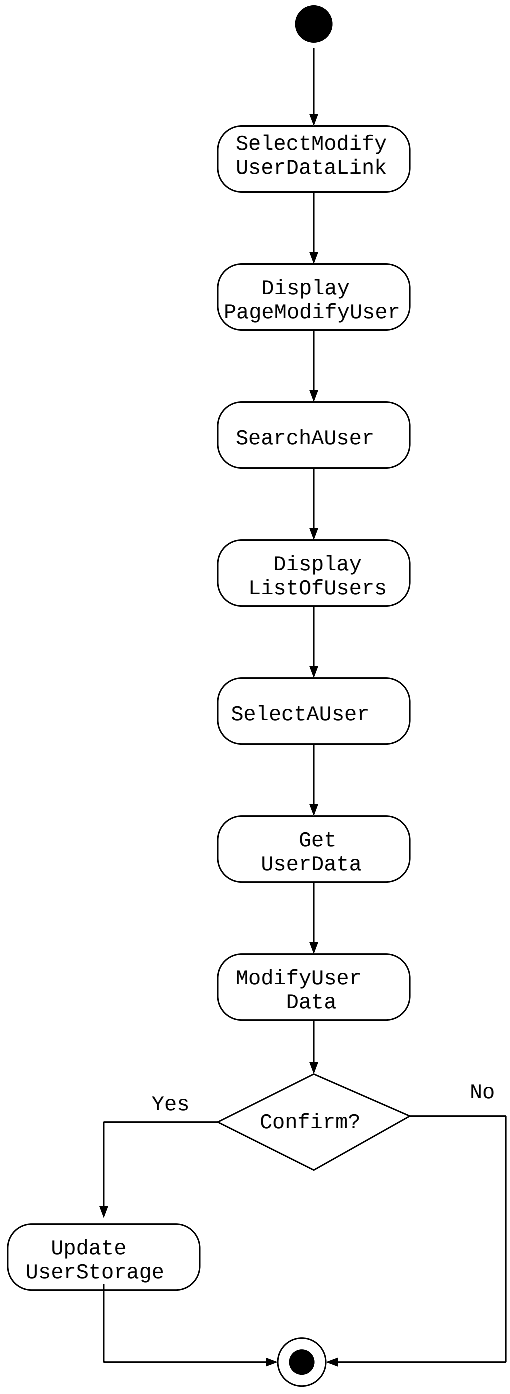
Activity Diagram: Create A User



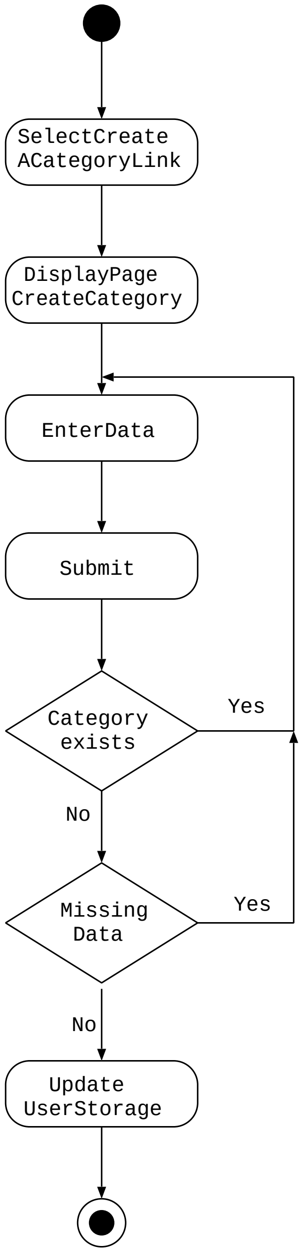
Activity Diagram: Search A User



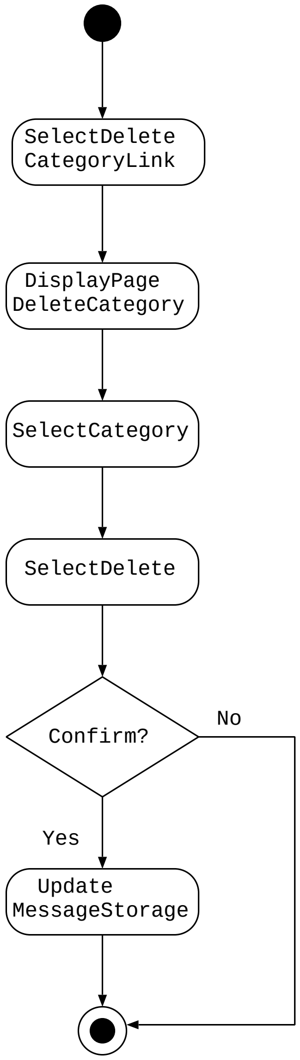
Activity Diagram: Search A User



Activity Diagram: Modify User Data



Activity Diagram: Create A Category



Activity Diagram: Delete Category

Appendix A

Protocols

A.1 25.10.2001

1. Person responsible for protocoll: Huskic Zenina
2. Participating persons: Schweiger Roland, all students visiting Software Engineering PS course in WS 2001/02
3. Topics talked about: introduction, general information about PS (tasks, marks, presentation)
4. New assignments (31. 10):

   Planen Sie eine CRC Session (siehe Unterlagen Sek.). Ich werde als Vertreter der potenziellen Auftraggeber fungieren. Zu diesem Zwecke spielen Sie in Ihrer Gruppe die Prozesse durch, die fr die Durchführung dieser Session nötig sind. Beachten Sie, dass Sie nur 30min Zeit haben. Diese Sitzung wird mit einer Videokamera gefilmt werden. Von besonderer Bedeutung für die Vorbereitung dürfte sein: Rollenverteilung der Gruppenmitglieder, Straffe Organisation, Offene Fragen zum Thema, ... Sie sollten sich solche Fragen stellen wie: Was ist eine CRC Session, wozu dient diese, wie wird sie organisiert, wer macht was, wie kann diese protokolliert werden, ... Bereiten Sie ein Dokument vor (siehe Material LaTeX Dokument), in dem die CRC Session beschrieben wird, also Planung, Rollenverteilung, Zielsetzung, offene Fragen, etc.
5. Project Leader (25. 10 - 31. 10): Zenina Huskic.

A.2 31.10.2001

1. Person responsible for protocol: Huskic Zenina
2. Participating persons: Roland Schweiger, Theresa Krichhammer, Peter Gruber, Albert Meixner, Michael Brachtl and Zenina Huskic.
3. Group Document presented by: Zenina Huskic.
4. Topics talked about: Open questions

5. New assignments(07. 11):

   Verfeinern Sie die Problembeschreibung mithilfe der ersten CRC Session und der darin entstandenen Protokolle. Planen Sie eine weitere CRC Session um aufgetretene Fragen nochmals mit dem Kundenverteter zu besprechen. In dieser zweiten Session werden Use Cases eine Rolle spielen. Desweiteren sollten Sie sich Gedanken zum Essential User Interface Prototyping machen. Das Verständins für die Problemdomäne ist bereits vertieft. In den Einzel- und Gruppendokumenten werden bis zum 07. 11 die Protokolle der ersten Session mitaufgenommen (Gruppenprotokoll in Gruppendokument und Einzelprotokolle in die Einzeldokumente). Dokumentieren Sie den Ausgang der ersten Session.

6. Project Leader (31. 10 - 07. 11): Theresa Krichhammer.

A.2.1 Answers to the open questions

1. What does "einfach = simple" mean, that is what is for customer simple enough?
   Simple means: data collecting, data presentation and meaningfull data input.

2. Who are Erfasser, "e-News" agency employees or we? How many data collectors are there?
   Reporters will prepare the news. The director controlls and issues the news. There are about 5 directors. Each director is responsible for approximately 50 reporters. Each reporter prepares at least one, and at most 5 news per day.

3. What is going to be prapared, that is, what is information content (text, pictures, multimedia)?
   Information content: text, pictures, multimedia...

4. Who are Abrufer, that is who can access the infomation, that is, are there different access levels?
   There are different access levels based on the price model:
   - free information available to the whole world
   - very important time dependent information will be paid

5. What kind of foreign systems?
   Foreign systems are: other pages (e.g. CNN page), SMS,...

6. Are there already other systems existing or not? If yes, does DTD for XML exist or not? That is, how is information delivered?
   There is no predefined DTD for XML.

7. How is information delivered to the end-users(per e-mail?)?
   Information to the end-users will be delivered in two ways:
   - push: via SMS, or via e-mail
   - pull: login

8. Does it mean that this a web-based application , or what?
   Yes, this is a web-based application.

9. What is for customer “wesentlich = important”?
   Important: collect and distribute important information
   Not important: fees accounting, customer accounting, etc.

10. Access time?
    The new information (not older than a month) should be faster available than the old one.

A.3 07.11.2001

1. Person responsible for protocol: Huskic Zenina

2. Participating persons: Roland Schweiger, Theresa Krichhammer, Peter Gruber, Albert Meixner, Michael Brachtl and Zenina Huskic.

3. Group Document presented by: Theresa Krichhammer.

4. Topics talked about: Open questions, CRC Session, Use Cases and Essential User Interface Prototyping.

5. New assignments (14. 11):

   In dieser Aufgabe beschreiben Sie die Essential Use Cases und das Essential User Interface. Damit ist das Fundament fr die Entwicklung eines Klassendiagrammes gelegt. Sie werden Ihre Ergebnisse einerseits in Ihren Papers dokumentieren, andererseits auf Overhead Folien eine Prsentation ber diese Themen vorbereiten.

6. Project Leader (07. 11 - 14. 11): Peter Gruber.

A.3.1 Answers to the open questions

1. Which operating system is going to be used?
   This system (InfoWarrior) has to be platform-independent.

2. What does the payment look like?
   The user will receive every month a bill per e-mail, and if she/he doesn't pay then she/he can't use the service anymore.

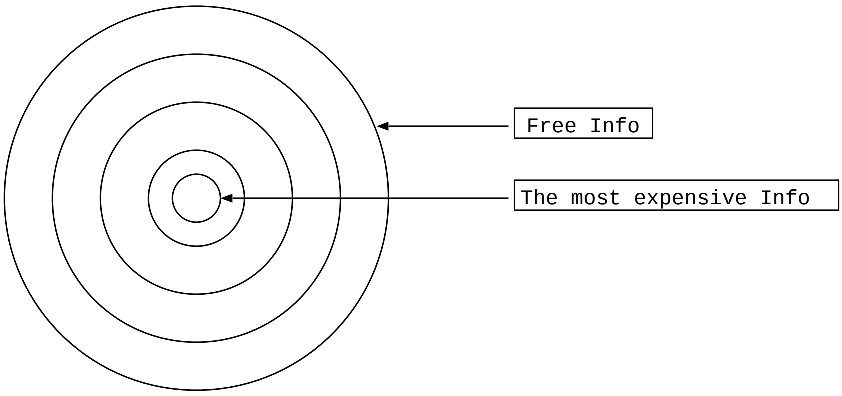
A.3.2 CRC Session

The following cards are identified during the CRC Session:

- Message, External System, User Interface, Core User, Core Message, User, Editor, Reporter, Administrator, Actor, Access Control, Storage, Archive, Login, Request, External System Interface, System Repoort, Category (see appendix B.)

A.3.3 Notices

- There has to be one-time editing, because editing of information for particular devices is very expensive, and the custmer doesn't want that.
  Solution: formal format of articals (e.g.: it will not be allowed to write an abstract longer than 160 sings).
- There will be an adminstrator of the system.
- There has to be an automatic process that checks and reports the administrator who has subscribed for the news and who has unscribed the news for some specific period of the time.
- Editor can also write articles. She/he has to be assigned to some other editor who checks her/his articles. In this case, editors are treated as reporters.
- The restriction of data will be done through predefined categories.
- Levels of payment:



5 Levels of payment (more you pay more you get)

A.4 14.11.2001

1. Person responsible for protocol: Huskic Zenina
2. Participating persons: Roland Schweiger, Theresa Krichhammer, Peter Gruber, Albert Meixner, Michael Brachtl and Zenina Huskic.
3. Group Document presented by: Peter Gruber.
4. Topics talked about: Use Cases and Essential User Interface Prototyping in InfoWarrior.
5. New assignments (21. 11):

   In dieser Aufgabe erstellen Sie ein Analysis Klassendiagrammes. Mit dem Essential User Interface, den CRC Cards und den Use Cases haben wir dafür das Fundament gelegt. Sie werden Ihre Ergebnisse einerseits in Ihren Papers dokumentieren, andererseits auf Overhead Folien eine Präsentation über diese Themen vorbereiten.
6. Project Leader (14. 11 - 21. 11) : Michael Brachtl.

A.4.1 Notices

- Reporter has to have a possibility to interrupt submitting of news ("submitted news" back to "not submitted news".)
- What kind of search will be available?
  There are two possibilities: keyword search or full text search.
  Team has to discuss this point.
- There is no deleting of data from database.
- We have to take care of naming convention (e.g., click vs. select).

A.5 21.11.2001

1. Person responsible for protocol: Zenina Huskic.
2. Participating persons: Roland Schweiger, Theresa Krichhammer, Peter Gruber, Albert Meixner, Michael Brachtl and Zenina Huskic.
3. Group Document presented by: Michael Brachtl.
4. Topics talked about: Class Diagram in InfoWarrior.
5. New assignments (05. 12):

   In dieser Aufgabe erstellen Sie Prototypen für User Interfaces. Ihr Essential User Interface mit Use Cases und dem ausgearbeiteten Klassendiagramm sollte bzgl. Anwendbarkeit geprüft werden für je einen HTML und einen WML UI Prototypen. Aus diesen Prototypen werden Sie Rückschlüsse auf Essential User

Interface Flow Diagrams ziehen und weitere Anforderungen an das System entdecken. Sie werden Ihre Ergebnisse einerseits in Ihren Papers dokumentieren, andererseits mithilfe von Programmen eine Präsentation über diese Themen vorbereiten.

6. Project Leader (21. 11 - 05. 12) : Albert Meixner.

A.5.1 Notices

- Our class diagram is to detailed, and the goal of a class diagram is to show basic classes and relationships. The implementation details are not important in this phase (Problem Domain Modeling.)
- UML Notation should be used.

A.6 05.12.2001

1. Person responsible for protocol: Zenina Huskic.
2. Participating persons: Roland Schweiger, Theresa Krichhammer, Peter Gruber, Albert Meixner, Michael Brachtl and Zenina Huskic.
3. Group Document presented by: Albert Meixner.
4. Topics talked about: HTML and WML User Interface Prototype in InfoWarrior.
5. New assignments (12. 12):
   Überarbeiten Sie die Aufgabe 6 lt. Besprechung bei der Präsentation. In dieser Aufgabe erstellen Sie Sequenzdiagramme und Aktivitätsdiagramme um das dynamische Verhalten des Systems und die Interaktion der Objekte/Klassen genauer zu spezifizieren. Halten Sie sich an das Skriptum im Sekretariat und vergessen Sie nicht, dass wir uns immer noch in der Analysephase befinden. Sie werden Ihre Ergebnisse einerseits in Ihren Papers dokumentieren, andererseits auf Overhead Folien eine Präsentation über diese Themen vorbereiten.
6. Project Leader (05. 12 - 12. 12) : Zenina Huskic.

A.6.1 Notices

- Repeated search could be restricted to previous search results.
- Linking of articles (that are submitted to editor) to the reporter names, not to their PIDs.
- Advanced search should be considered as a new Use Case.
- WML Prototype presents a different User Interface, and therefore demands a special Essential User Interface Flow Diagram.

A.7 12.12.2001

1. Person responsible for protocol: Zenina Huskic.
2. Participating persons: Roland Schweiger, Theresa Krichhammer, Peter Gruber, Albert Meixner, Michael Brachtl and Zenina Huskic.
3. Group Document presented by: Zenina Huskic.
4. Topics talked about: Sequence and Activity Diagrams in InfoWarrior.
5. New assignments (12. 12):

   Hiermit leiten wir die nächste Phase ein, nämlich die Design Phase. War unser Ziel in der Analyse Phase zu verstehen WAS das Problem ist, werden wir nun bestimmen WIE das System zu bauen ist. Das Design Modell entsteht aus dem Analyse Modell mit Informationen aus dem Entwicklungskontext, Design Konzepten und Anwendungen von Design Pattern. Entwickeln Sie in dieser Aufgabe ein Design Klassenmodell, machen Sie sich Gedanken über mögliche Design Patterns und die geplante Architektur für Ihr System. Sie werden Ihre Ergebnisse einerseits in Ihren Papers dokumentieren, andererseits auf Overhead Folien eine Präsentation über diese Themen vorbereiten.
6. Project Leader (12. 12 - 09. 01): Theresa Krichhammer.

A.7.1 Notices

- Sequence Diagrams are used to modell the exchanging of messages between associated objects, and therefore they should not contain activities, which are specific to activity diagrams (e.g. enter data.)

Appendix B

CRC Cards

Class: Editor	
Responsabilities:	Collaborators:
Release Message	Reporter
Edit Message	Message
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Reporter	
Responsabilities:	Collaborators:
Write Message	Editor
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: User	
Responsabilities:	Collaborators:
Read news	Message
Search news	User Interface
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: System Report	
Responsabilities:	Collaborators:
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: External System	
Responsabilities:	Collaborators:
	External System
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Administrator	
Responsabilities:	Collaborators:
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Category	
Responsabilities:	Collaborators:
	Message
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Core User	
Responsabilities:	Collaborators:
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Login	
Responsabilities:	Collaborators:
Internal Representation of an	Core User
Actor	Access Control
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Archive	
Responsabilities:	Collaborators:
	Message
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Storage	
Responsabilities:	Collaborators:
	Message
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: External System Interface	
Responsabilities:	Collaborators:
Provide News	External System
Convert Messages and Requests	User Interface
from extarnal to core format	Message
	Request
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Message	
Responsabilities:	Collaborators:
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Request	
Responsabilities:	Collaborators:
Specify request to interface	Core User
	Actor
	Extern. Sys.Interface
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Core Message	
Responsabilities:	Collaborators:
Manage Message storage and	Message
Information Flow	Ext.Sys.Interface
	Storage
	Archive
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Access Control	
Responsabilities:	Collaborators:
Check Permissions of Actors	Core User
	Actor
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:

Class: Actor	
Responsabilities:	Collaborators:
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators:
	User
	Editor
	Reporter
	External System

Class: User Interface	
Responsabilities:	Collaborators:
Provide News to User	User
	Ext. Sys. Interface
Superclass:	
Responsabilities:	Collaborators:
Subclass:	
Responsabilities:	Collaborators: